Ed. May 9, 2006

Dimap Dictionary

Generic profile
Version 1.1

Natural Order Table of Contents

<Dimap_Document>

Dimap_Generic, 1.0

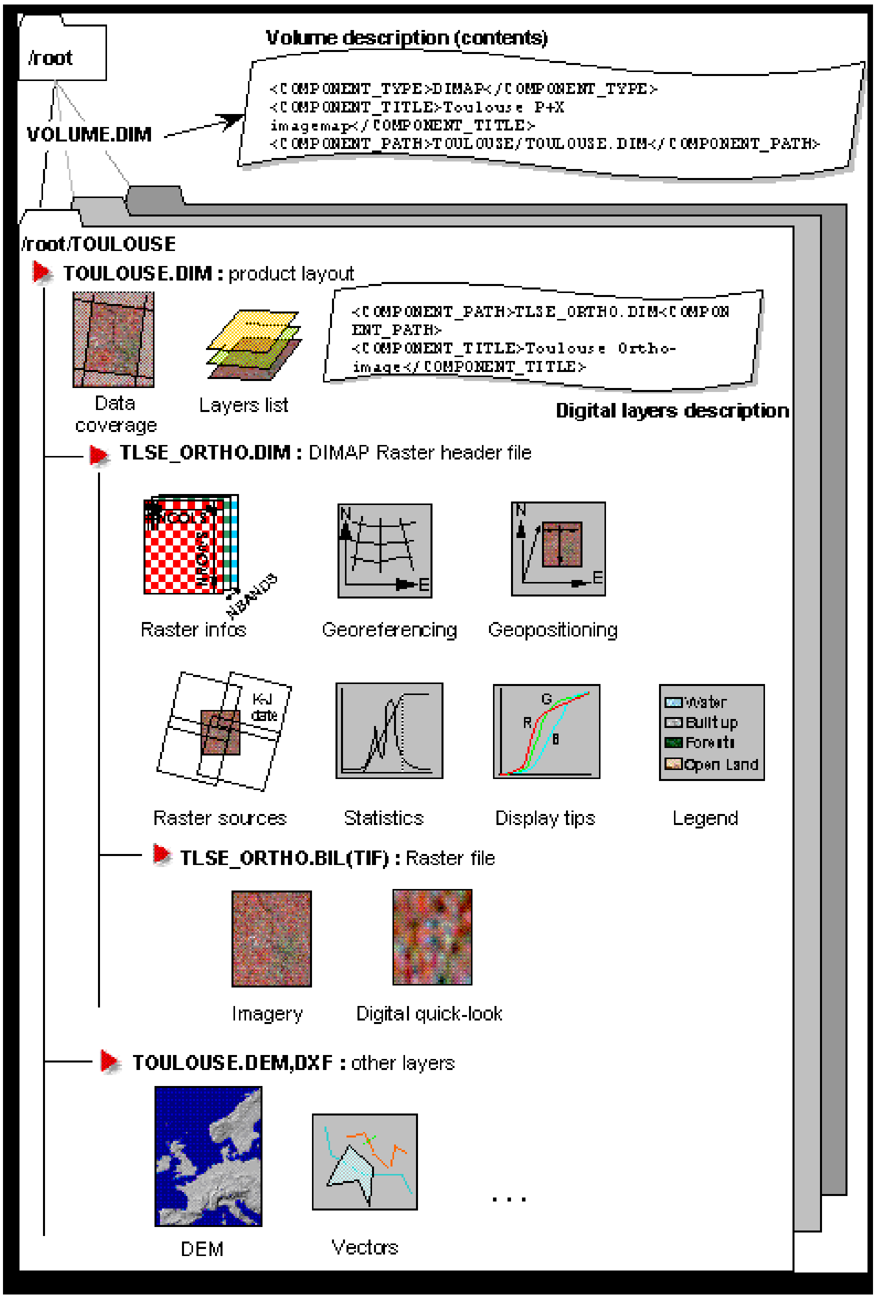
Purpose

Root of any dimap document

Description

This Group holds all the other Dimap Groups. It is the start point of any Dimap metadata document.

Illustration



Example

```
<Dimap_Document
             xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
             xsi:noNamespaceSchemaLocation="Dimap_Document.xsd">
   <Metadata_Id>
    ...
   </Metadata_Id>
```

```
</Dimap_Document>
```

Datatype : (t_Dimap_Document)

Unordered sub-elements :

- Metadata_Id
- Dataset_Id , minOccurs=0
- Dataset_Frame , minOccurs=0
- Dataset_Use , minOccurs=0
- Production , minOccurs=0
- Dataset_Components , minOccurs=0
- Quality_Assessment , minOccurs=0
- Coordinate_Reference_System , minOccurs=0
- Raster_CS , minOccurs=0
- Geoposition , minOccurs=0
- Map_Declination , minOccurs=0
- Raster_Dimensions , minOccurs=0
- Raster_Encoding , minOccurs=0
- Data_Processing , minOccurs=0
- Data_Access , minOccurs=0
- Image_Display , minOccurs=0
- Image_Interpretation , minOccurs=0
- Dataset_Sources , minOccurs=0
- Vector_Attributes , minOccurs=0

<Metadata_Id>

Dimap_Generic, 1.0

Purpose

Metadata and profile information

Description

This Group of keywords allow to identify the metadata version being used and the metadata profile when applicable. The metadata profile is a non-normative concept allowing specification of a subset of Dimap. Since most information is optional within Dimap, the profiles are supposed to give a description of what kind of information is supposed to be present in the document.

Dimap producers are supposed to publish the specifications of the profiles they use as textual information. Future releases of Dimap will try to get profiles to a point where they can be formally described and the products checked against them.

Example

```
<Metadata_Id>
  <METADATA_FORMAT version="1.1">DIMAP</METADATA_FORMAT>
  <METADATA_PROFILE>SPOTView</METADATA_PROFILE>
</Metadata_Id>
```

Datatype : (t_Metadata_Id)

Unordered sub-elements :

- METADATA_FORMAT
- METADATA_PROFILE , minOccurs=0

Possible parents :

- **Dimap_Document**

<METADATA_FORMAT>

Dimap_Generic, 1.0

Purpose

Metadata format identification

Description

This record provides the metadata format and version of the current document.

This keyword is actually the only required keyword in a Dimap Document.

Example

```
<Metadata_Id>
  <METADATA_FORMAT version="1.1">DIMAP</METADATA_FORMAT>
  <METADATA_PROFILE>SPOTView</METADATA_PROFILE>
</Metadata_Id>
```

Datatype : (t_METADATA_FORMAT)

Simple content :
Extension of k_DIMAP
Attribute : **version** of type k_Dimap_Version

Datatype : (k_Dimap_Version)
Restriction of xsd:string
- 1.0
- 1.1

Datatype : (k_DIMAP)
Restriction of xsd:string
- DIMAP

Possible parents :

- **Metadata_Id**

<METADATA_PROFILE>

Dimap_Generic, 1.0

Purpose

Metadata profile identification

Description

This keyword tells which profile the current document conforms to. A profile is both a minimal semantic content and a file structure specification. Once a profile is identified, some specific checks or parsing procedures can be applied. A profile is typically defined by a data producer and identifies the set of rules applicable to a given class of products. The way the profiles are actually implemented is not part of the current Dimap specification. One could use DTDs, XML-Schemas or other document content/file layout specification.

The METADATA_PROFILE can also be used, on the client side, to select a collection of stylesheets that may be applicable to the document, if he/she is using XSLT transformation techniques on Dimap/XML documents.

Please refer to the Dimap Documentation : "Dimap Structure" and "Dimap in Use" chapters.

Example

```
<Metadata_Id>
  <METADATA_FORMAT version="1.1">DIMAP</METADATA_FORMAT>
  <METADATA_PROFILE>SPOTView</METADATA_PROFILE>
</Metadata_Id>
```

Datatype : (t_METADATA_PROFILE)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Metadata_Id**

<Dataset_Id>

Dimap_Generic, 1.0

Purpose

Dataset Identification

Description

Dataset identification information. This include both textual and quick-look/thumbnail visual representation of the dataset. This information is mainly provided for customer's use and cataloguing/browsing purposes.

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_Dataset_Id)

Ordered sub-elements :

- DATASET_INDEX , minOccurs=0
- DATASET_SERIES , minOccurs=0
- DATASET_NAME , minOccurs=0
- DATASET_LOCATION , minOccurs=0
- COUNTRY_NAME , minOccurs=0 , maxOccurs=unbounded
- COUNTRY_CODE , minOccurs=0 , maxOccurs=unbounded
- COPYRIGHT , minOccurs=0
- DATASET_TN_PATH , minOccurs=0
- DATASET_QL_PATH , minOccurs=0
- DATASET_TN_FORMAT , minOccurs=0
- DATASET_QL_FORMAT , minOccurs=0

Possible parents :

- **Dimap_Document**

<DATASET_INDEX>

Dimap_Generic, 1.0

Purpose

Index of the current dataset within a given series

Description

This keyword allows to provide a textual index associated to a dataset. This index is supposed to identify a dataset within a dataset series.

Follows some examples of dataset series :

- a collection of data belonging to a unique work order
- a collection of data of the same type (e.g. satellite quad maps)
- a collection of demonstration products

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_DATASET_INDEX)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Dataset_Id**

<DATASET_SERIES> Dimap_Generic, 1.0

Purpose

Identification of the series the current dataset belongs to if any

Description

This keyword allows to provide a textual description of the series this datasets belongs to. It is used in conjuction with DATASET_INDEX.

Follows some examples of dataset series :

- a collection of data belonging to a unique work order
- a collection of data of the same type (e.g. satellite quad maps)
- a collection of demonstartion products

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_DATASET_SERIES)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Dataset_Id**

<DATASET_NAME>

Dimap_Generic, 1.0

Purpose

Name of the current dataset

Description

This keyword is used to assign a name to a given dataset. This name is supposed to be used by the data display software for identiying the dataset (as opposed to simply displaying the file name which is often too constrained and too long). Since this name is supposed to be used as a label, we recommend to use simple, although meaningful, names.

Examples : Paris Spot Ortho-image, Alfaro imagemap, 123/456 ERS SAR coherence imagemap

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_DATASET_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Dataset_Id**

<DATASET_LOCATION>

Dimap_Generic, 1.0

Purpose

Dataset location, textual information

Description

This keyword is used to deliver some supplemental textual information for localizing the dataset in addition to COUNTRY_NAME and COUNTRY_CODE. For example the location could be "Virginia" or "Paris".

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_DATASET_LOCATION)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Dataset_Id**

<COUNTRY_NAME> Dimap_Generic, 1.0

Purpose

Textual country name corresponding to COUNTRY_CODE

Description

Name of the country corresponding to the COUNTRY_CODE. No official list nor language is provided, thi is a pure textual entry.

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_COUNTRY_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Dataset_Id**

<COUNTRY_CODE>

Dimap_Generic, 1.0

Purpose

Standard code of the country

Description

ISO-3166 country code for rapid product localization and automated catalogue application. These codes match the tail extension of countrywide internet domain names (fr, es, nl, se, . . .)

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_COUNTRY_CODE)

Restriction of Country_Codes

Datatype : (Country_Codes)
Restriction of xsd:string

Possible parents :

- **Dataset_Id**

<COPYRIGHT>

Dimap_Generic, 1.0

Purpose

Copyright and legal information

Description

This keyword provides information about copyright and legal notices aplicable to the current product.

It may contain additional markup such as HTML since its datatype is Text.

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_COPYRIGHT)

Complex content :
Extension of Text

Possible parents :

- **Dataset_Id**

<DATASET_TN_PATH>

Dimap_Generic, 1.0

Purpose

Dataset thumb-nail (small raster view) file access path

Description

This keyword provides the access path to the dataset thumnail. The thumbnail is a small raster file (an icon) associated to a data layer allowing iconic representation of the dataset for browsing purposes.

The path is relative to the current container. The path notation follows the URI/URL standard which can be found at :

- http://www.w3.org/Addressing/Addressing.html
- http://www.w3.org/Addressing/URL/uri-spec.html
- http://www.w3.org/Addressing/URL/url-spec.html.

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_DATASET_TN_PATH)

Complex content :
Extension of URI
Attribute : **href** of type xsd:anyURI

Possible parents :

- **Dataset_Id**

<DATASET_QL_PATH> Dimap_Generic, 1.0

Purpose

Dataset quick-look (raster view) file access path

Description

This keyword provides the access path to the dataset quick-look. The quick-look is a small raster file associated to a data layer allowing quick assesment and browsing before the actual data loading occurs.

The path is relative to the current document. The path notation follows the URI/URL standard which can be found at :

- http://www.w3.org/Addressing/Addressing.html
- http://www.w3.org/Addressing/URL/uri-spec.html
- http://www.w3.org/Addressing/URL/url-spec.html.

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_DATASET_QL_PATH)

Complex content :
Extension of URI
Attribute : **href** of type xsd:anyURI

Possible parents :

- **Dataset_Id**

<DATASET_TN_FORMAT>

Dimap_Generic, 1.0

Purpose

Dataset thumb-nail (small raster view) file format

Description

This keyword identifies the data storage format used for the dataset thumbnail. The thumbnail is a small raster file (an icon) associated to a data layer allowing iconic representation of the dataset for browsing purposes.

Note : The JFIF format is the official name of JPEG.

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_DATASET_TN_FORMAT)

Complex content :
Restriction of QL_Formats
Restriction of String_Version
- *JFIF*
- *JPEG*
- *JP2*
- *GIF*
- *TIFF*
- *GEOTIFF*

Extension of xsd:string
Attribute : **version** of type xsd:string

Possible parents :

- **Dataset_Id**

<DATASET_QL_FORMAT>

Dimap_Generic, 1.0

Purpose

Dataset quick-look (raster view) file format

Description

This keyword identifies the data storage format used for the dataset quick-look. The quick-look is a small raster file associated to a data layer allowing quick assesment and browsing before the actual data loading occurs.

Note : The JFIF format is the official name of JPEG.

Example

```
<Dataset_Id>
        <DATASET_INDEX>1</DATASET_INDEX>
          <DATASET_SERIES>Spot Demo</DATASET_SERIES>
        <DATASET_NAME>Alfaro</DATASET_NAME>
        <COPYRIGHT>(c)CNES 1992, Distribution Spot Image</COPYRIGHT>
        <COUNTRY_NAME>Spain</COUNTRY_NAME>
        <COUNTRY_CODE>sp</COUNTRY_CODE>
        <DATASET_LOCATION>Provincia de Alfaro</DATASET_LOCATION>
        <DATASET_TN_PATH href="Alfaro_ortho_tn.gif"/>
        <DATASET_TN_FORMAT version="Gif89a">GIF</DATASET_QL_FORMAT>
        <DATASET_QL_PATH href="Alfaro_ortho_ql.jpg"/>
        <DATASET_QL_FORMAT version="1.0">JFIF</DATASET_QL_FORMAT>
</Dataset_Id>
```

Datatype : (t_DATASET_QL_FORMAT)

Complex content :
Restriction of QL_Formats
Restriction of String_Version
- *JFIF*
- *JPEG*
- *JP2*
- *GIF*
- *TIFF*
- *GEOTIFF*

Extension of xsd:string
Attribute : **version** of type xsd:string

Possible parents :

- **Dataset_Id**

<Dataset_Frame>

Dimap_Generic, 1.0

Purpose

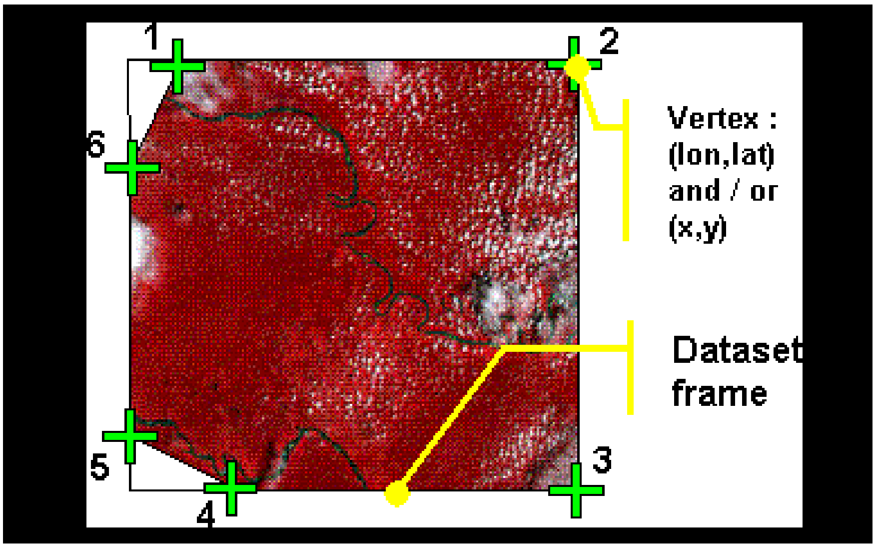
Dataset bounding polygon

Description

The dataset frame is a closed polygon which locates the area of interest of the dataset. In other words, the inside of the frame is where the producer put his best efforts to satisfy the client request. The degree of precision of precision of the Dataset_Frame is not specified, thus it should be used only for approximate localization (cataloguing and browsing) or rapid positioning of the Dataset extent.

Please note that one should not use this information to Geoposition the dataset. Use Geopostion instead.

Illustration



Example

```
<Dataset_Frame>
     <Vertex>
        ...
   </Vertex>
   <Vertex>
        ...
    </Vertex>
        ...
 </Dataset_Frame>
```

Datatype : (t_Dataset_Frame)

Ordered sub-elements :

- Vertex , maxOccurs=unbounded
- SCENE_ORIENTATION , CM if unmerged full scene

Possible parents :

- **Dimap_Document**

<Vertex>

Dimap_Generic, 1.0

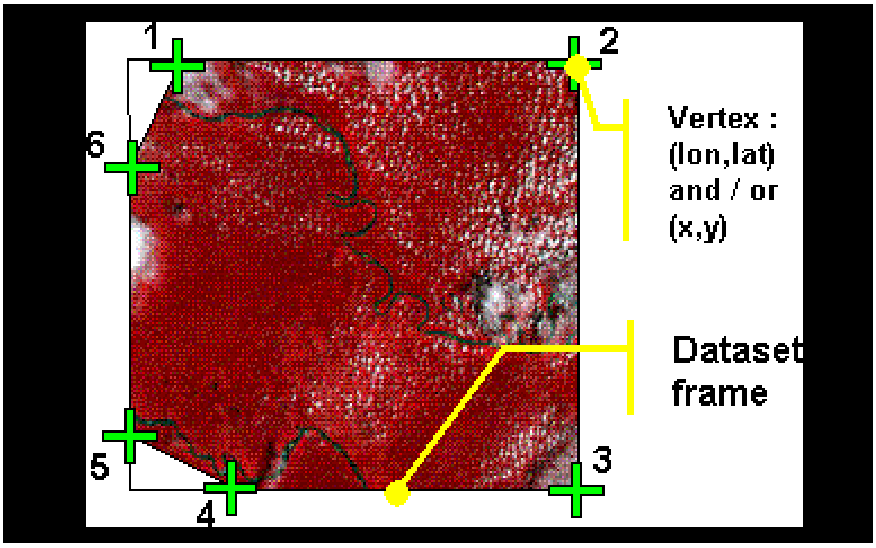
Purpose

Dataset or source frame vertice.

Description

Vertex is repeatable. A Vertex is cited for each vertex of the framing polygon it is describing.

Illustration



Example

```
<Vertex>
  <FRAME_LON unit="DEG">-1.86684000</FRAME_LON>
  <FRAME_LAT unit="DEG">42.41702000</FRAME_LAT>
  <FRAME_X unit='M'>80916.45</FRAME_X>
  <FRAME_Y unit='M'>2403313.91</FRAME_Y>
</Vertex>
```

Datatype : (t_Vertex)

Unordered sub-elements :

- FRAME_LON , minOccurs=0 , CM if FRAME_X not present
- FRAME_LAT , minOccurs=0 , CM if FRAME_Y not present
- FRAME_X , minOccurs=0 , CM if FRAME_LON not present
- FRAME_Y , minOccurs=0 , CM if FRAME_LAT not present

Possible parents :

- **Dataset_Frame**
- **Source_Frame**

<FRAME_LON>

Dimap_Generic, 1.0

Purpose

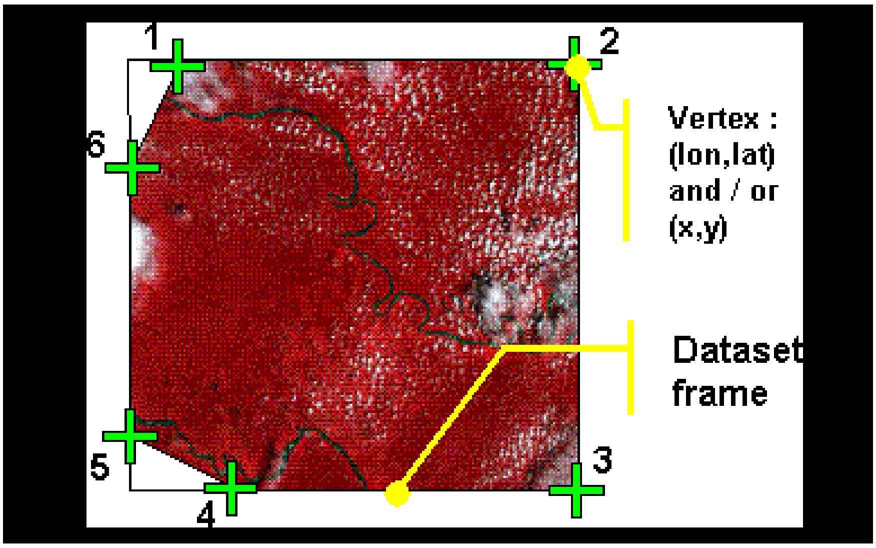
Longitude coordinate of a vertex belonging to a frame

Description

This keyword provides the longitude coordinate of the current vertex of a frame. It is expressed in the Geographic Coordinate System attached to the Coordinate Reference System.

The frame is represented as a polygon. The frame can be either the Dataset_Frame or the Source_Frame. Please refer to the attached figure.

Illustration



Example

```
<FRAME_LON unit="DEG">35.09090909</FRAME_LON>
```

Datatype : (t_FRAME_LON)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_FRAME_LON_Angular_Unit

Datatype : (k_FRAME_LON_Angular_Unit)
Restriction of String
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_49_1.1, xpath=//Vertex/FRAME_LON

CM if FRAME_X not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Vertex**

<FRAME_LAT>

Dimap_Generic, 1.0

Purpose

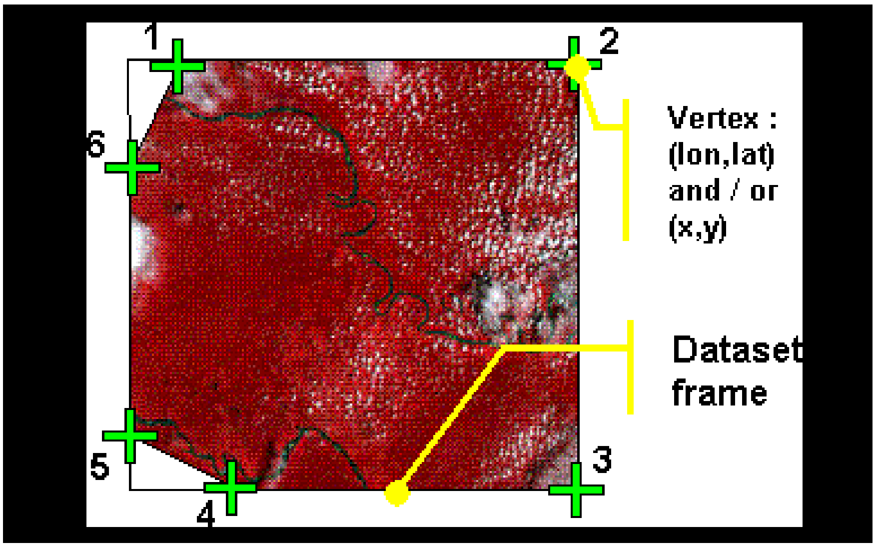
Latitude coordinate of a vertex belonging to a frame

Description

This keyword provides the latitude coordinate of the current vertex of a frame. It is expressed in the Geographic Coordinate System attached to the Coordinate Reference System.

The frame is represented as a polygon. The frame can be either the Dataset_Frame or the Source_Frame. Please refer to the attached figure.

Illustration



Example

```
<FRAME_LAT unit="DEG">32.14285714</FRAME_LAT>
```

Datatype : (t_FRAME_LAT)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_FRAME_LAT_Angular_Unit

Datatype : (k_FRAME_LAT_Angular_Unit)
Restriction of String
- *DEG*
- *DMS*
- *MNT*
- *SEC*
- *GON*
- *RAD*

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_49_2.1, xpath=//Vertex/FRAME_LAT

CM if FRAME_Y not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Vertex**

<FRAME_X>

Dimap_Generic, 1.0

Purpose

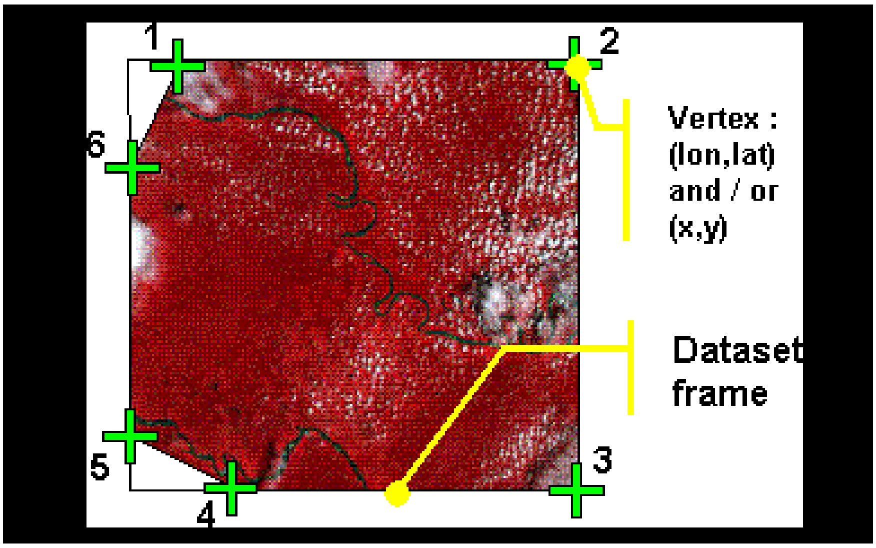
Projected X coordinate of a vertex belonging to a frame

Description

This keyword provides the projected X coordinate of the current vertex of a frame. It is expressed in the Projected Coordinate System described by Coordinate_Reference_System.

The frame is represented as a polygon. The frame can be either the Dataset_Frame or the Source_Frame. Please refer to the attached figure.

Illustration



Example

```
<Vertex>
  <FRAME_LON unit="DEG">-1.86684000</FRAME_LON>
  <FRAME_LAT unit="DEG">42.41702000</FRAME_LAT>
  <FRAME_X unit='M'>80916.45</FRAME_X>
  <FRAME_Y unit='M'>2403313.91</FRAME_Y>
</Vertex>
```

Datatype : (t_FRAME_X)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_FRAME_X_Unit

Datatype : (k_FRAME_X_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***

- FTSEAR
- FM
- NM
- CM
- KM
- FTIND
- SFT
- DEG
- DMS
- MNT
- SEC
- GON
- RAD

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_49_3.1, xpath=//Vertex/FRAME_X

CM if FRAME_LON not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Vertex**

<FRAME_Y>

Dimap_Generic, 1.0

Purpose

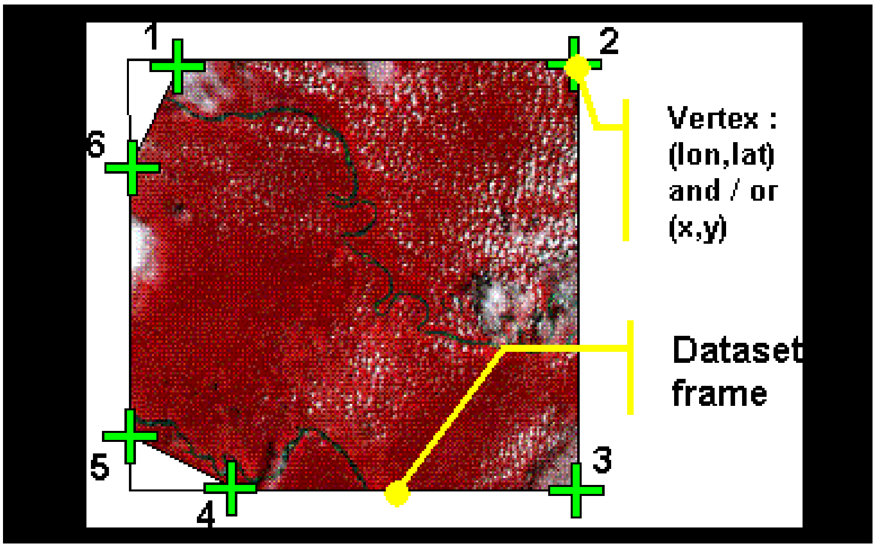
Projected Y coordinate of a vertex belonging to a frame

Description

This keyword provides the projected Y coordinate of the current vertex of a frame. It is expressed in the Projected Coordinate System described by Coordinate_Reference_System.

The frame is represented as a polygon. The frame can be either the Dataset_Frame or the Source_Frame. Please refer to the attached figure.

Illustration



Example

```
<Vertex>
  <FRAME_LON unit="DEG">-1.86684000</FRAME_LON>
  <FRAME_LAT unit="DEG">42.41702000</FRAME_LAT>
  <FRAME_X unit='M'>80916.45</FRAME_X>
  <FRAME_Y unit='M'>2403313.91</FRAME_Y>
</Vertex>
```

Datatype : (t_FRAME_Y)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_FRAME_Y_Unit

Datatype : (k_FRAME_Y_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***

- *FTSEAR*
- *FM*
- *NM*
- *CM*
- *KM*
- *FTIND*
- *SFT*
- *DEG*
- *DMS*
- *MNT*
- *SEC*
- *GON*
- *RAD*

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_49_4.1, xpath=//Vertex/FRAME_Y

CM if FRAME_LAT not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Vertex**

<SCENE_ORIENTATION> Dimap_Generic, 1.2

Purpose

Scene orientation

Description

This keyword delivers the scene orientation between the geographic north and the satellite track.

The unit used is DEG.

Example

```
<Dataset_Frame>
     <Vertex>
        ...
   </Vertex>
   <Vertex>
        ...
    </Vertex>
        ...
 </Dataset_Frame>
```

Datatype : (t_SCENE_ORIENTATION)

Simple content :
Restriction of ANGLE_SCENE_ORIENTATION
Restriction of DEG_Angular
Min value (inclusive) : 0.0
Max value (inclusive) : 360.0
Extension of xsd:double
Attribute : **unit** of type DEG_Angular_Unit

Datatype : (DEG_Angular_Unit)
Restriction of xsd:string
- *DEG*

Special constraint : id=C_349_1.1, xpath=//Dataset_Frame/SCENE_ORIENTATION

CM if unmerged full scene

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Dataset_Frame**

<Dataset_Use>

Dimap_Generic, 1.0

Purpose

Recommended and limitations of use of the dataset

Description

This includes the intended use, limitations, restrictions, completeness of the dataset. This is for reading purposes for the customer.

Example

```
<Dimap_Document
             xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
             xsi:noNamespaceSchemaLocation="Dimap_Document.xsd">
   <Metadata_Id>
    ...
   </Metadata_Id>
   ...
</Dimap_Document>
```

Datatype : (t_Dataset_Use)

Unordered sub-elements :

- DATASET_CONTENT
- DATASET_COMMENTS , minOccurs=0

Possible parents :

- **Dimap_Document**

<DATASET_CONTENT>

Dimap_Generic, 1.0

Purpose

Dataset content

Description

This keyword provides an informal way of describing the content of a dataset. The content description is supposed to be synthetic. This keyword can be used in complement with DATASET_COMMENTS which can be used to deliver detailed information.

Example

```
<Dimap_Document

             xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
             xsi:noNamespaceSchemaLocation="Dimap_Document.xsd">
   <Metadata_Id>
    ...
   </Metadata_Id>
   ...
</Dimap_Document>
```

Datatype : (t_DATASET_CONTENT)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- Dataset_Use

<DATASET_COMMENTS>

Dimap_Generic, 1.0

Purpose

Dataset comments

Description

This keyword provides an informal way of commenting the dataset. This keyword can be used in complement with DATASET_CONTENT which is supposed to be synthetic.

Please note that it may contain additional markup such as HTML since its datatype is Text

Example

```
<Dimap_Document

             xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
             xsi:noNamespaceSchemaLocation="Dimap_Document.xsd">
   <Metadata_Id>
    ...
   </Metadata_Id>
   ...
</Dimap_Document>
```

Datatype : (Text)

Ordered sub-elements :

Possible parents :

- Dataset_Use

<Production>

Dimap_Generic, 1.0

Purpose

General production process information

Description

General production process information includes data producer identification and data production date.

Example

```
<Production>
    <DATASET_PRODUCER_NAME>Spot Image, tel. +33 (0)5 62 19 42 42, fax +33
(0)5 62 19 40 56</DATASET_PRODUCER>
    <DATASET_PRODUCER_URL href="http://www.spotimage.fr"/>
    <DATASET_PRODUCTION_DATE>1992-10-08</DATASET_PRODUCTION_DATE>
    <JOB_ID>ASP00473</JOB_ID>
    <PRODUCT_TYPE>TT9890</PRODUCT_TYPE>
    <PRODUCT_INFO>SPOTView(r) PLUS, 30'x30'</PRODUCT_INFO>
 </Production>
```

Datatype : (t_Production)

Unordered sub-elements :

- DATASET_PRODUCER_NAME
- DATASET_PRODUCER_URL , minOccurs=0
- DATASET_PRODUCTION_DATE , minOccurs=0
- PRODUCT_TYPE
- PRODUCT_INFO , minOccurs=0
- JOB_ID , minOccurs=0

Possible parents :

- **Dimap_Document**

<DATASET_PRODUCER_NAME> Dimap_Generic, 1.0

Purpose

Dataset producer identification

Description

This is used to textually identify the dataset producer for both copyright pupposes if applicable and custommer's support. An additionnal information can be delivered with DATASET_PRODUCER_URL.

Example

```
<Production>
    <DATASET_PRODUCER_NAME>Spot Image, tel. +33 (0)5 62 19 42 42, fax +33
(0)5 62 19 40 56</DATASET_PRODUCER>
    <DATASET_PRODUCER_URL href="http://www.spotimage.fr"/>
    <DATASET_PRODUCTION_DATE>1992-10-08</DATASET_PRODUCTION_DATE>
    <JOB_ID>ASP00473</JOB_ID>
    <PRODUCT_TYPE>TT9890</PRODUCT_TYPE>
    <PRODUCT_INFO>SPOTView(r) PLUS, 30'x30'</PRODUCT_INFO>
 </Production>
```

Datatype : (t_DATASET_PRODUCER_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Production**

<DATASET_PRODUCER_URL>

Dimap_Generic, 1.0

Purpose

Dataset producer URL

Description

This is used to deliver a URL identifier of the dataset producer for both copyright pupposes if applicable and custommer's support.

Example

```
<Production>
    <DATASET_PRODUCER_NAME>Spot Image, tel. +33 (0)5 62 19 42 42, fax +33
(0)5 62 19 40 56</DATASET_PRODUCER>
    <DATASET_PRODUCER_URL href="http://www.spotimage.fr"/>
    <DATASET_PRODUCTION_DATE>1992-10-08</DATASET_PRODUCTION_DATE>
    <JOB_ID>ASP00473</JOB_ID>
    <PRODUCT_TYPE>TT9890</PRODUCT_TYPE>
    <PRODUCT_INFO>SPOTView(r) PLUS, 30'x30'</PRODUCT_INFO>
 </Production>
```

Datatype : (t_DATASET_PRODUCER_URL)

Complex content :
Extension of URI
Attribute : **href** of type xsd:anyURI

Possible parents :

- **Production**

<DATASET_PRODUCTION_DATE> Dimap_Generic, 1.0

Purpose

Dataset production date

Description

This is used to put a time stamp on the dataset. The dataset production date is the actual date of the packaging of all the layers included in it. Each individual layer can be described using the Dataset_Sources Group.

Example

```
<DATASET_PRODUCTION_DATE>2004-03-10</DATASET_PRODUCTION_DATE>
```

Datatype : (t_DATASET_PRODUCTION_DATE)

Restriction of DateOrDateTime

Datatype : (DateOrDateTime)

Possible parents :

- **Production**

<PRODUCT_TYPE>

Dimap_Generic, 1.0

Purpose

Product type identification

Description

Similar to PRODUCT_INFO but is supposed to be shorter and uniquely identifying a product range. This is a kind of model/brand identification. This can be used as well for efficient custommers support. The product type is likely to be internal to the producers production system.

Example

```
<Production>
    <DATASET_PRODUCER_NAME>Spot Image, tel. +33 (0)5 62 19 42 42, fax +33
(0)5 62 19 40 56</DATASET_PRODUCER>
    <DATASET_PRODUCER_URL href="http://www.spotimage.fr"/>
    <DATASET_PRODUCTION_DATE>1992-10-08</DATASET_PRODUCTION_DATE>
    <JOB_ID>ASP00473</JOB_ID>
    <PRODUCT_TYPE>TT9890</PRODUCT_TYPE>
    <PRODUCT_INFO>SPOTView(r) PLUS, 30'x30'</PRODUCT_INFO>
 </Production>
```

Datatype : (t_PRODUCT_TYPE)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Production**

<PRODUCT_INFO>

Dimap_Generic, 1.0

Purpose

General product information such as a commercial product range name

Description

This keywords is mainly used by data producers to advertise the name of the range the current dataset belongs to. See also PRODUCT_TYPE.

Example

```
<Production>
    <DATASET_PRODUCER_NAME>Spot Image, tel. +33 (0)5 62 19 42 42, fax +33
(0)5 62 19 40 56</DATASET_PRODUCER>
    <DATASET_PRODUCER_URL href="http://www.spotimage.fr"/>
    <DATASET_PRODUCTION_DATE>1992-10-08</DATASET_PRODUCTION_DATE>
    <JOB_ID>ASP00473</JOB_ID>
    <PRODUCT_TYPE>TT9890</PRODUCT_TYPE>
    <PRODUCT_INFO>SPOTView(r) PLUS, 30'x30'</PRODUCT_INFO>
 </Production>
```

Datatype : (t_PRODUCT_INFO)

Complex content :
Extension of Text

Possible parents :

- **Production**

<JOB_ID>

Dimap_Generic, 1.0

Purpose

Job identification (order id) within the processing factory for this data set

Description

This record holds a manufacturer's specific identifier (work-order id) within the processing factory for this data set. This can be regarded as a serial number. It is specially useful for customer's support and quality controls.

Example

```
<Production>
    <DATASET_PRODUCER_NAME>Spot Image, tel. +33 (0)5 62 19 42 42, fax +33
(0)5 62 19 40 56</DATASET_PRODUCER>
    <DATASET_PRODUCER_URL href="http://www.spotimage.fr"/>
    <DATASET_PRODUCTION_DATE>1992-10-08</DATASET_PRODUCTION_DATE>
    <JOB_ID>ASP00473</JOB_ID>
    <PRODUCT_TYPE>TT9890</PRODUCT_TYPE>
    <PRODUCT_INFO>SPOTView(r) PLUS, 30'x30'</PRODUCT_INFO>
 </Production>
```

Datatype : (t_JOB_ID)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Production**

<Dataset_Components>

Dimap_Generic, 1.0

Purpose

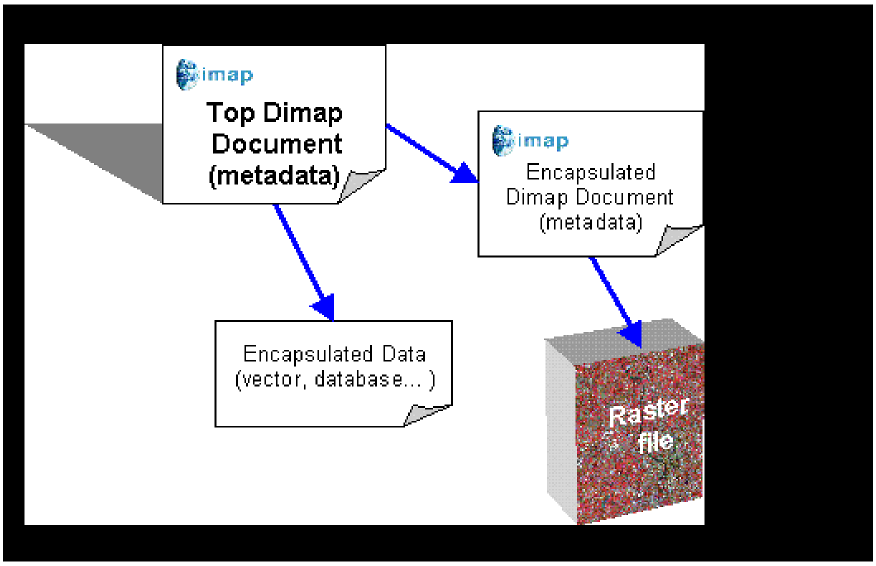
List of Components encapsulated in the current dataset

Description

Components can be considered as hyper-text links to some other data. These attached data can be of different kind depending on the current dataset type. Some good examples are :

- products of a volume dataset
- layers of a composite map dataset

Illustration



Example

```
<Dataset_Components>
  <Component>
   ...
  </Component>
  <Component>
   ...
  </Component>
   ...
</Dataset_Components>
```

Datatype : (t_Dataset_Components)

Ordered sub-elements :

- Component , maxOccurs=unbounded

Possible parents :

- **Dimap_Document**

<Component>

Dimap_Generic, 1.0

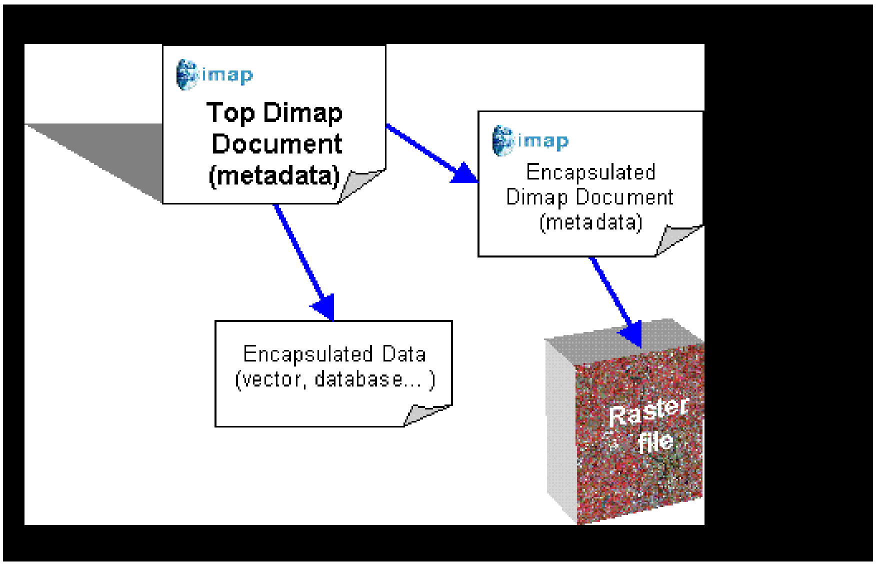
Purpose

Component description and path

Description

A component can be considered as a hyper-text link. A Component is an encapsulated set of data which is further described by the linked document. From this level the Component is assigned a short textual description and graphical quick-look and thumbnail (preview and iconic image representation). This Group can be repeated as many times as the number of components encapsulated into the current dataset.

Illustration



Example

```
<Component>
  <COMPONENT_PATH href="Alfaro_dtm.dim"/>
  <COMPONENT_TITLE>Alfaro DTM (raster layer)</COMPONENT_TITLE>
  <COMPONENT_CONTENT>Satellite image</COMPONENT_CONTENT>
  <COMPONENT_TYPE>DIMAP</COMPONENT_TYPE>
  <COMPONENT_TN_PATH href="Alfaro_dtm_tn.gif"/>
  <COMPONENT_TN_FORMAT version='GIF87a'>GIF</COMPONENT_TN_FORMAT>
</Component>

or

<Component>
    <COMPONENT_PATH href="Alfaro.dem"/>
    <COMPONENT_TYPE>ENCAPSULATED</COMPONENT_TYPE>
    <COMPONENT_TITLE>Alfaro DEM, DTED format</COMPONENT_TITLE>
    <COMPONENT_CONTENT>DEM</COMPONENT_CONTENT>
</Component>
```

Datatype : (t_Component)

Unordered sub-elements :

- COMPONENT_TITLE , minOccurs=0
- COMPONENT_CONTENT , minOccurs=0
- COMPONENT_TYPE
- COMPONENT_PATH
- COMPONENT_TN_PATH , minOccurs=0
- COMPONENT_TN_FORMAT , minOccurs=0 , CM if COMPONENT_TN_PATH present

Possible parents :

- **Dataset_Components**

<COMPONENT_TITLE>

Dimap_Generic, 1.0

Purpose

Current component title

Description

This keyword provides the title (name) of the component being described.

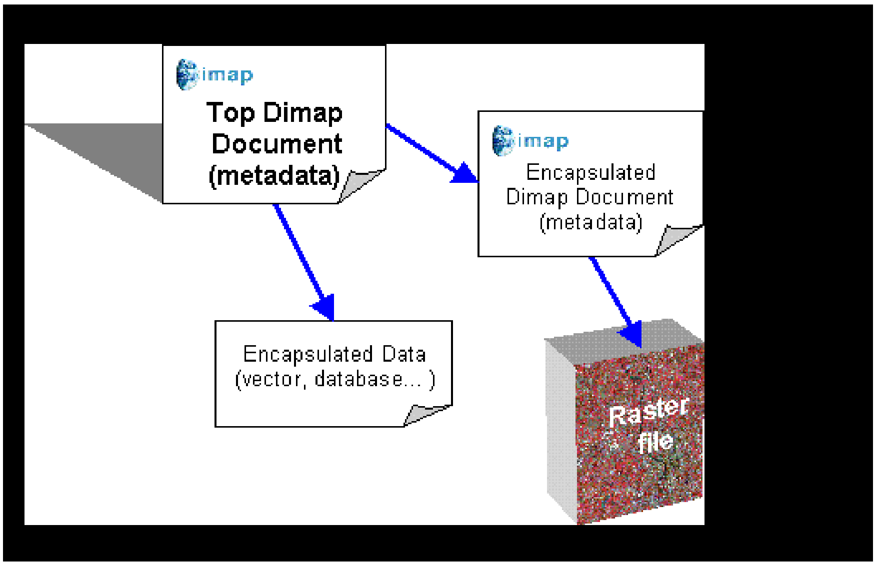
When a dataset has a complex content, it is composed of several "components". This keyword provides the title of the components attached to the current dataset.

Typical such components are :

- layers (image, vectors, DEM) of a single map
- products of a volume delivery

Components (from a given dataset point of view) look like hyper-links to some embedded data.

Illustration



Example

```
<Component>
  <COMPONENT_PATH href="Alfaro_dtm.dim"/>
  <COMPONENT_TITLE>Alfaro DTM (raster layer)</COMPONENT_TITLE>
  <COMPONENT_CONTENT>Satellite image</COMPONENT_CONTENT>
  <COMPONENT_TYPE>DIMAP</COMPONENT_TYPE>
  <COMPONENT_TN_PATH href="Alfaro_dtm_tn.gif"/>
  <COMPONENT_TN_FORMAT version='GIF87a'>GIF</COMPONENT_TN_FORMAT>
</Component>

or

<Component>
    <COMPONENT_PATH href="Alfaro.dem"/>
    <COMPONENT_TYPE>ENCAPSULATED</COMPONENT_TYPE>
    <COMPONENT_TITLE>Alfaro DEM, DTED format</COMPONENT_TITLE>
    <COMPONENT_CONTENT>DEM</COMPONENT_CONTENT>
</Component>
```

Datatype : (t_COMPONENT_TITLE)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Component**

<COMPONENT_CONTENT>

Dimap_Generic, 1.0

Purpose

Descriptive content of the current component

Description

This keyword allows to textualy describe the content of the current component of the current dataset. Please note that it may contain markup (such as HTML) since it is of DataType Text.

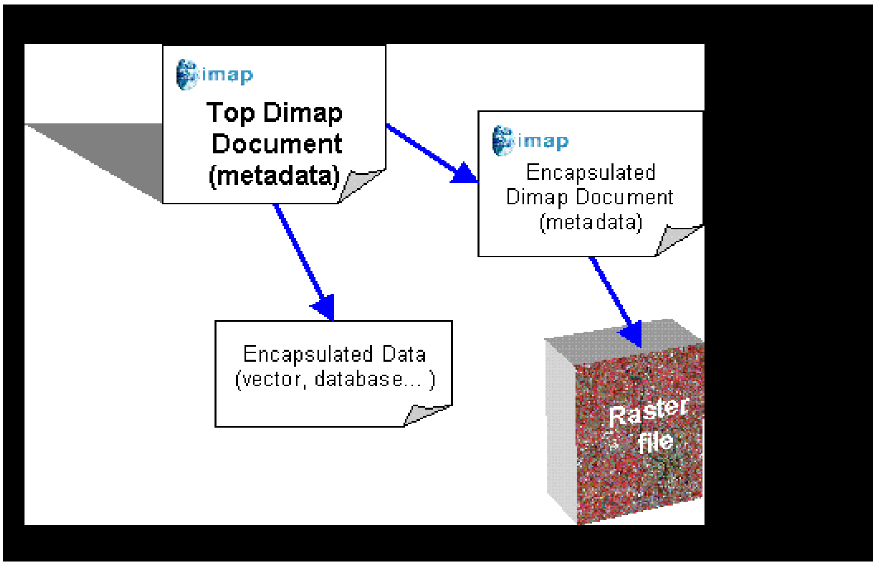
When a dataset has a complex content, it is composed of several "components". This keyword provides a first level content information for the components attached to the current dataset.

Typical such components are :

- layers (image, vectors, DEM) of a single map
- products of a volume delivery

Components (from a given dataset point of view) look like hyper-links to some embedded data.

Illustration



Example

```
<Component>
  <COMPONENT_PATH href="Alfaro_dtm.dim"/>
  <COMPONENT_TITLE>Alfaro DTM (raster layer)</COMPONENT_TITLE>
  <COMPONENT_CONTENT>Satellite image</COMPONENT_CONTENT>
  <COMPONENT_TYPE>DIMAP</COMPONENT_TYPE>
  <COMPONENT_TN_PATH href="Alfaro_dtm_tn.gif"/>
  <COMPONENT_TN_FORMAT version='GIF87a'>GIF</COMPONENT_TN_FORMAT>
</Component>

or

<Component>
    <COMPONENT_PATH href="Alfaro.dem"/>
    <COMPONENT_TYPE>ENCAPSULATED</COMPONENT_TYPE>
    <COMPONENT_TITLE>Alfaro DEM, DTED format</COMPONENT_TITLE>
    <COMPONENT_CONTENT>DEM</COMPONENT_CONTENT>
</Component>
```

Datatype : (t_COMPONENT_CONTENT)

Complex content :
Extension of Text

Possible parents :

- **Component**

<COMPONENT_TYPE> Dimap_Generic, 1.0

Purpose

Current component type

Description

This keywords is used to identify the type of current component of this dataset. The type can be one of DIMAP, ENCAPSULATED.

If type is DIMAP then the Component is a DIMAP Component (Dimap/xml document), the user can procede and load the Component metatdata to discover more about the component, following the hyperlink provided by COMPONENT_PATH.

If type is ENCAPSULATED the component is stored using a self-contained proprietary format. The COMPONENT_CONTENT is then used to give some more clues. This possibility is supposed to be used only when an agreement between the data producer and customer has been previously taken. It is expected that the client software will have the possibility to directly load the attached component using a native format.

When a dataset has a complex content, it is composed of several "components". This keyword provides the type of the components attached to the current dataset. It can be used to load an iconic view of a component in a catalog fashion.

Typical such components are :

- layers (image, vectors, DEM) of a single map
- products of a volume delivery

Components (from a given dataset point of view) look like hyper-links to some embedded data.

Example

```
<Component>
  <COMPONENT_PATH href="Alfaro_dtm.dim"/>
  <COMPONENT_TITLE>Alfaro DTM (raster layer)</COMPONENT_TITLE>
  <COMPONENT_CONTENT>Satellite image</COMPONENT_CONTENT>
  <COMPONENT_TYPE>DIMAP</COMPONENT_TYPE>
  <COMPONENT_TN_PATH href="Alfaro_dtm_tn.gif"/>
  <COMPONENT_TN_FORMAT version='GIF87a'>GIF</COMPONENT_TN_FORMAT>
</Component>

or

<Component>
    <COMPONENT_PATH href="Alfaro.dem"/>
    <COMPONENT_TYPE>ENCAPSULATED</COMPONENT_TYPE>
    <COMPONENT_TITLE>Alfaro DEM, DTED format</COMPONENT_TITLE>
    <COMPONENT_CONTENT>DEM</COMPONENT_CONTENT>
</Component>
```

Datatype : (t_COMPONENT_TYPE)

Restriction of Component_Types

Datatype : (Component_Types)
Restriction of xsd:string
- *DIMAP*
- *ENCAPSULATED*

Possible parents :

- **Component**

<COMPONENT_PATH>

Dimap_Generic, 1.0

Purpose

Current component access path

Description

This keyword provides the access path to the Component currently being described.

The path is relative to the current document. The path notation follows the URI/URL standard which can be found at :

- http://www.w3.org/Addressing/Addressing.html
- http://www.w3.org/Addressing/URL/uri-spec.html
- http://www.w3.org/Addressing/URL/url-spec.html.

When a dataset has a complex content, it is composed of several "components". This keyword provides paths to the components attached to the current dataset.

Typical such components are :

- layers (image, vectors, DEM) of a single map
- products of a volume delivery

Components (from a given dataset point of view) look like hyper-links to some embedded data.

Datatype : (t_COMPONENT_PATH)

Complex content :
Extension of URI
Attribute : **href** of type xsd:anyURI

Possible parents :

- **Component**

<COMPONENT_TN_PATH>

Dimap_Generic, 1.0

Purpose

Current component thumbnail's access path

Description

This keyword provides the file storage format used for the Thumbnail associated to the component being described. A Thumbnail is a small image (icon) used for graphically representing the Component.

When a dataset has a complex content, it is composed of several "components". This keyword provides access path to the thumbnail of the components attached to the current dataset. It can be used to load an iconic view of a component in a catalog fashion.

Typical such components are :

- layers (image, vectors, DEM) of a single map
- products of a volume delivery

Components (from a given dataset point of view) look like hyper-links to some embedded data.

The path is relative to the current document. The path notation follows the URI/URL standard which can be found at :

- http://www.w3.org/Addressing/Addressing.html
- http://www.w3.org/Addressing/URL/uri-spec.html
- http://www.w3.org/Addressing/URL/url-spec.html.

Example

```
<Component>
  <COMPONENT_PATH href="Alfaro_dtm.dim"/>
  <COMPONENT_TITLE>Alfaro DTM (raster layer)</COMPONENT_TITLE>
  <COMPONENT_CONTENT>Satellite image</COMPONENT_CONTENT>
  <COMPONENT_TYPE>DIMAP</COMPONENT_TYPE>
  <COMPONENT_TN_PATH href="Alfaro_dtm_tn.gif"/>
  <COMPONENT_TN_FORMAT version='GIF87a'>GIF</COMPONENT_TN_FORMAT>
</Component>

or

<Component>
    <COMPONENT_PATH href="Alfaro.dem"/>
    <COMPONENT_TYPE>ENCAPSULATED</COMPONENT_TYPE>
    <COMPONENT_TITLE>Alfaro DEM, DTED format</COMPONENT_TITLE>
    <COMPONENT_CONTENT>DEM</COMPONENT_CONTENT>
</Component>
```

Datatype : (t_COMPONENT_TN_PATH)

Complex content :
Extension of URI
Attribute : **href** of type xsd:anyURI

Possible parents :

- **Component**

<COMPONENT_TN_FORMAT>

Dimap_Generic, 1.0

Purpose

Current component thumbnail's format

Description

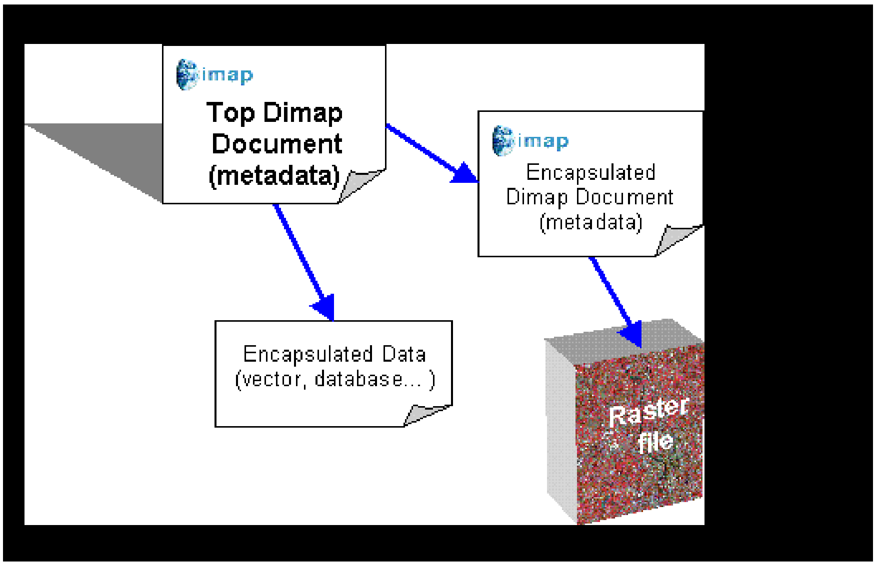
This keyword provides the file storage format used for the Thumbnail associated to the component being described. A Thumbnail is a small image (icon) used for graphically representing the Component.

When a dataset has a complex content, it is composed of several "components". This keyword provides the thumbnail storage format of the components attached to the current dataset. It can be used to check whether or not the client application will be able to display the icon before attempting to load it.

Typical such components are :
- layers (image, vectors, DEM) of a single map
- products of a volume delivery

Components (from a given dataset point of view) look like hyper-links to some embedded data.

Illustration



Example

```
<Component>
  <COMPONENT_PATH href="Alfaro_dtm.dim"/>
  <COMPONENT_TITLE>Alfaro DTM (raster layer)</COMPONENT_TITLE>
  <COMPONENT_CONTENT>Satellite image</COMPONENT_CONTENT>
  <COMPONENT_TYPE>DIMAP</COMPONENT_TYPE>
  <COMPONENT_TN_PATH href="Alfaro_dtm_tn.gif"/>
  <COMPONENT_TN_FORMAT version='GIF87a'>GIF</COMPONENT_TN_FORMAT>
</Component>

or

<Component>
    <COMPONENT_PATH href="Alfaro.dem"/>
    <COMPONENT_TYPE>ENCAPSULATED</COMPONENT_TYPE>
    <COMPONENT_TITLE>Alfaro DEM, DTED format</COMPONENT_TITLE>
    <COMPONENT_CONTENT>DEM</COMPONENT_CONTENT>
</Component>
```

Datatype : (t_COMPONENT_TN_FORMAT)

Simple content :
Restriction of QL_Formats
Restriction of String_Version
- *JFIF*
- *JPEG*
- *JP2*
- *GIF*
- *TIFF*
- *GEOTIFF*

Extension of xsd:string
Attribute : **version** of type xsd:string

Special constraint : id=C_9_1.1, xpath=//Component/COMPONENT_TN_FORMAT

CM if COMPONENT_TN_PATH present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Component**

<Quality_Assessment>

Dimap_Generic, 1.0

Purpose

Quality information about the data (geometric accuracy, defects, progress,...)

Description

Quality information about the data (geometric accuracy, defects, progress,...). Since we do not know of any public standard on this subject which is applicable to geographic data, this group is a kind of place-holder where a data producer can publish his own set of quality parameters.

Datatype : (t_Quality_Assessment)

Ordered sub-elements :

- QUALITY_TABLES
- Quality_Parameter , maxOccurs=unbounded

Possible parents :

- **Dimap_Document**
- **Source_Information**

<QUALITY_TABLES>

Dimap_Generic, 1.0

Purpose

Quality assessment tables identification

Description

This record provides the quality tables used. Presently we do not know of any standard for quality assement, we recommend that each data producer use its own quality assesment technique and provide some structured information using the QUALITY_* set of keywords. The QUALITY_TABLE is used to identify the quality scheme used by the producer.

The number and name of parameters depends on the type of quality measures performed on the dataset. This could possibly be :

- RMS geometric accuracy/precision measures
- 90% circular geometric errors
- confusion matrix for a classified image

The quality/precision/accuracy issue is still open.

Example

```
<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:COH_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Perpendicular base line of the ERS Tandem
pair</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">-152.4</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:MODEL_RMS_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global root mean square error of physical
model</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">8.3</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:RADIOM_EYE_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global radiometric quality, visual
inspection</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE>Excellent, slight haze at south-east of
image</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>
```

Datatype : (t_QUALITY_TABLES)

Simple content :
Restriction of String_Version
Extension of xsd:string
Attribute : **version** of type xsd:string

Possible parents :

- **Quality_Assessment**

<Quality_Parameter>

Dimap_Generic, 1.0

Purpose

Quality parameter description and value

Description

Quality parameter description and value is part the Quality assessment information.

Example

```
<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:COH_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Perpendicular base line of the ERS Tandem
pair</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">-152.4</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:MODEL_RMS_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global root mean square error of physical
model</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">8.3</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:RADIOM_EYE_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global radiometric quality, visual
inspection</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE>Excellent, slight haze at south-east of
image</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>
```

Datatype : (t_Quality_Parameter)

Ordered sub-elements :

- QUALITY_PARAMETER_DESC
- QUALITY_PARAMETER_CODE , minOccurs=0
- QUALITY_PARAMETER_VALUE , minOccurs=0

Possible parents :

- **Quality_Assessment**

<QUALITY_PARAMETER_DESC> Dimap_Generic, 1.0

Purpose

Description of the current quality assesment parameter

Description

This keyword provides the description of the current parameter of the Quality assesment series.

The number and name of parameters depends on the type of quality measures performed on the dataset. This could possibly be :

- RMS geometric accuracy/precision measures
- 90% circular geometric errors
- confusion matrix for a classified image

The quality/precision/accuracy issue is still open.

Example

```
<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:COH_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Perpendicular base line of the ERS Tandem
pair</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">-152.4</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:MODEL_RMS_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global root mean square error of physical
model</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">8.3</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:RADIOM_EYE_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global radiometric quality, visual
inspection</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE>Excellent, slight haze at south-east of
image</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>
```

Datatype : (t_QUALITY_PARAMETER_DESC)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Quality_Parameter**

<QUALITY_PARAMETER_CODE> Dimap_Generic, 1.0

Purpose

Identification code of a quality parameter

Description

This keyword provides the unique identification code for the quality parameter being described. The list of quality parameters is dependent upon the chosen Quality scheme (QUALITY_TABLES). It is highly recommended to prefix the code by the namespace it belongs to, using standard XML namespace mechanism.

Example

```
<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:COH_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Perpendicular base line of the ERS Tandem
pair</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">-152.4</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:MODEL_RMS_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global root mean square error of physical
model</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">8.3</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:RADIOM_EYE_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global radiometric quality, visual
inspection</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE>Excellent, slight haze at south-east of
image</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>
```

Datatype : (t_QUALITY_PARAMETER_CODE)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Quality_Parameter**

<QUALITY_PARAMETER_VALUE>

Dimap_Generic, 1.0

Purpose

Value of the quality assesment parameter

Description

This keyword provides the actual value of the current parameter of the Quality assesment series.

The number and name of parameters depends on the type of quality measures performed on the dataset. This could possibly be :

- RMS geometric accuracy/precision measures
- 90% circular geometric errors
- Confusion matrix for a classified image

The quality/precision/accuracy issue is still open.

Please note that its datatype is set to Text, so that any type of quality information can be published (textual, HTML, Dimension...)

Example

```
<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:COH_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Perpendicular base line of the ERS Tandem
pair</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">-152.4</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:MODEL_RMS_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global root mean square error of physical
model</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">8.3</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:RADIOM_EYE_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global radiometric quality, visual
inspection</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE>Excellent, slight haze at south-east of
image</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>
```

Datatype : (t_QUALITY_PARAMETER_VALUE)

Complex content :
Extension of Text

Possible parents :

- **Quality_Parameter**

<Coordinate_Reference_System>

Dimap_Generic, 1.0

Purpose

Coordinate Reference System

Description

Coordinate Reference System is the main entry point for describing the coordinate system which is applicable to all the data included in the dataset.

Please check the Dimap Documentation for more information about the Dimap Geodetic scheme. The attached figure shows an abstract of this infromation.

Example

```
<Coordinate_Reference_Systsem>
  <GEO_TABLES version="4.2">EPSG</GEO_TABLES>
  <Horizontal_CS>
     ...
  </Horizontal_CS>
</Coordinate_Reference_System>

or

<Coordinate_Reference_Systsem>
  <GEO_TABLES version="4.2">EPSG</GEO_TABLES>
  <Horizontal_CS>
     ...
  </Horizontal_CS>
  <Vertical_CS>
     ...
  </Vertical_CS>
</Coordinate_Reference_System>
```

Datatype : (t_Coordinate_Reference_System)

Unordered sub-elements :

- GEO_TABLES
- Horizontal_CS
- Vertical_CS , minOccurs=0

Possible parents :

- **Dimap_Document**
- **Source_Information**

<GEO_TABLES>

Dimap_Generic, 1.0

Purpose

Geocoding tables identification

Description

Identification of the system/tables used for identifying geodetic parameters Use of EPSG/GeoTiff is strongly recommended, but other coding schemes can be used, provided the customer and the producer agree on a private scheme.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<GEO_TABLES version="5.2">EPSG</GEO_TABLES>
```

Datatype : (t_GEO_TABLES)

Simple content :
Restriction of String_Version
- *EPSG*
- *GEOTIFF*
- *SPOT*
- *SATELLUS*
- *CUSTOM*

Extension of xsd:string
Attribute : **version** of type xsd:string

Possible parents :

- **Coordinate_Reference_System**

<Horizontal_CS>

Dimap_Generic, 1.0

Purpose

Horizontal (2D) Coordinate System description

Description

The Horizontal (2D) Coordinate System is part of the CRS description. It can be either a projected CS or a geographic CS. This matches the EPSG definition. Often a CRS is a Horizontal_CS when height is not involved.

Please refer to the Dimap Documentation for more details.

Example

```
<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Lambert 2 etendu France</HORIZONTAL_CS_NAME>
  <HORIZONTAL_CS_CODE>epsg:27582</HORIZONTAL_CS_CODE>
 </Horizontal_CS>

or

<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Special</HORIZONTAL_CS_NAME>
  <Projection>
    ...
  </Projection>
  <Geographic_CS>
    ...
  </Geographic_CS>
 </Horizontal_CS>
```

Datatype : (t_Horizontal_CS)

Unordered sub-elements :

- HORIZONTAL_CS_TYPE
- HORIZONTAL_CS_NAME
- HORIZONTAL_CS_CODE , minOccurs=0
- Geographic_CS , minOccurs=0 , CM if HORIZONTAL_CS_CODE not present
- Projection , minOccurs=0 , CM if HORIZONTAL_CS_CODE not present and HORIZONTAL_CS_TYPE=PROJECTED
- Coordinate_Axis , minOccurs=0

Possible parents :

- **Coordinate_Reference_System**

<HORIZONTAL_CS_TYPE> Dimap_Generic, 1.0

Purpose

Horizontal Coordinate System type

Description

This keyword provides the type of the Horizontal Coordinate System. The type can be either PROJECTED, GEOGRAPHIC or OTHER.

- PROJECTED means that the Horizontal Coordinate System is a cartographic projection
- GEOGRAPHIC means that the Horizontal Coordinate System is unprojected (longitude/latitude used)
- OTHER means that some other type is used, for example a local coordinate system associated to paper coordinate axis for a sanned cadastral map.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Lambert 2 etendu France</HORIZONTAL_CS_NAME>
  <HORIZONTAL_CS_CODE>epsg:27582</HORIZONTAL_CS_CODE>
 </Horizontal_CS>

or

<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Special</HORIZONTAL_CS_NAME>
  <Projection>
    ...
  </Projection>
  <Geographic_CS>
    ...
  </Geographic_CS>
 </Horizontal_CS>
```

Datatype : (t_HORIZONTAL_CS_TYPE)

Restriction of Horizontal_CS_Types

Datatype : (Horizontal_CS_Types)
Restriction of xsd:string
- *PROJECTED*
- *GEOGRAPHIC*
- *OTHER*

Possible parents :

- **Horizontal_CS**

<HORIZONTAL_CS_NAME> Dimap_Generic, 1.0

Purpose

Horizontal coordinate system identification name

Description

This keyword provides the name of the Horizontal Coordinate System in use. The name space relates to the Geodetic Tables defined by the GEO_TABLES keyword if defined.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Lambert 2 etendu France</HORIZONTAL_CS_NAME>
  <HORIZONTAL_CS_CODE>epsg:27582</HORIZONTAL_CS_CODE>
 </Horizontal_CS>

or

<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Special</HORIZONTAL_CS_NAME>
  <Projection>
    ...
  </Projection>
  <Geographic_CS>
    ...
  </Geographic_CS>
 </Horizontal_CS>
```

Datatype : (t_HORIZONTAL_CS_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Horizontal_CS**

<HORIZONTAL_CS_CODE>

Dimap_Generic, 1.0

Purpose

Horizontal coordinate system identification code

Description

This keyword provides the unique identification code of the Horizontal Coordinate System in use. This code relates to the Geodetic Tables defined by the GEO_TABLES keyword (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Lambert 2 etendu France</HORIZONTAL_CS_NAME>
  <HORIZONTAL_CS_CODE>epsg:27582</HORIZONTAL_CS_CODE>
 </Horizontal_CS>

or

<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Special</HORIZONTAL_CS_NAME>
  <Projection>
    ...
  </Projection>
  <Geographic_CS>
    ...
  </Geographic_CS>
 </Horizontal_CS>
```

Datatype : (t_HORIZONTAL_CS_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Horizontal_CS**

<Geographic_CS>

Dimap_Generic, 1.0

Purpose

Geographic Coordinate System description

Description

The Geographic Coordinate System description is part of the CRS description. This is the top level entry for completely defining a geographic coordinate system (ellipsoid, datum, prime meridian,...)

Please refer to the Dimap Documentation for a complete description of the Dimap Geodetic scheme.

Example

```
<Geographic_CS>
  <GEOGRAPHIC_CS_NAME>GCS_ED50</GEOGRAPHIC_CS_NAME>
  <GEOGRAPHIC_CS_CODE>epsg:4230</GEOGRAPHIC_CS_CODE>
</Geographic_CS>

or

<Geographic_CS>

  <GEOGRAPHIC_CS_NAME>Special Bangladesh</GEOGRAPHIC_CS_NAME>
  <Horizontal_Datum>
    ...
  </Horizontal_Datum>
</Geographic_CS>
```

Datatype : (t_Geographic_CS)

Unordered sub-elements :

- GEOGRAPHIC_CS_NAME
- GEOGRAPHIC_CS_CODE , minOccurs=0
- Horizontal_Datum , minOccurs=0 , CM if GEOGRAPHIC_CS_CODE not present

Special constraint : id=C_13_1.1, xpath=//Horizontal_CS/Geographic_CS

CM if HORIZONTAL_CS_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Horizontal_CS**

<GEOGRAPHIC_CS_NAME>

Dimap_Generic, 1.0

Purpose

Geographic coordinate system textual identification (name)

Description

This record provides the name of the Geographical Coordinate System (GCS). This name could be automatically derived from the geodetic tables specified by GEO_TABLES and from GCS_CODE.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Geographic_CS>
  <GEOGRAPHIC_CS_NAME>GCS_ED50</GEOGRAPHIC_CS_NAME>
  <GEOGRAPHIC_CS_CODE>epsg:4230</GEOGRAPHIC_CS_CODE>
</Geographic_CS>

or

<Geographic_CS>

  <GEOGRAPHIC_CS_NAME>Special Bangladesh</GEOGRAPHIC_CS_NAME>
  <Horizontal_Datum>
    ...
  </Horizontal_Datum>
</Geographic_CS>
```

Datatype : (t_GEOGRAPHIC_CS_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geographic_CS**

<GEOGRAPHIC_CS_CODE>

Dimap_Generic, 1.0

Purpose

Geographic coordinate system identification code

Description

This keyword provides the code for identification of the Geographic Coordinate System (GCS) used in the current layer. The code refers to the coding scheme defined by the keyword GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Geographic_CS>
  <GEOGRAPHIC_CS_NAME>GCS_ED50</GEOGRAPHIC_CS_NAME>
  <GEOGRAPHIC_CS_CODE>epsg:4230</GEOGRAPHIC_CS_CODE>
</Geographic_CS>

or

<Geographic_CS>

  <GEOGRAPHIC_CS_NAME>Special Bangladesh</GEOGRAPHIC_CS_NAME>
  <Horizontal_Datum>
    ...
  </Horizontal_Datum>
</Geographic_CS>
```

Datatype : (t_GEOGRAPHIC_CS_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Geographic_CS**

<Horizontal_Datum>

Dimap_Generic, 1.0

Purpose

Horizontal Datum description

Description

Horizontal Datum description (Geographic Coordinate System shift)

Example

```
<Horizontal_Datum>
  <HORIZONTAL_DATUM_NAME>Datum_Indian_1954</HORIZONTAL_DATUM_NAME>
  <HORIZONTAL_DATUM_CODE>epsg:6239</HORIZONTAL_DATUM_CODE>
  <Prime_Meridian>
    ...
  </Prime_Meridian>
  <Ellipsoid>
    ...
  </Ellipsoid>
</Horizontal_Datum>
```

Datatype : (t_Horizontal_Datum)

Unordered sub-elements :

- HORIZONTAL_DATUM_NAME , minOccurs=0
- HORIZONTAL_DATUM_CODE , minOccurs=0
- Prime_Meridian , minOccurs=0
- Ellipsoid , minOccurs=0 , CM if HORIZONTAL_DATUM_CODE not present

Special constraint : id=C_14_1.1, xpath=//Geographic_CS/Prime_Meridian

CM if GEOGRAPHIC_CS_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Geographic_CS**

<HORIZONTAL_DATUM_NAME> Dimap_Generic, 1.0

Purpose

Horizontal datum shift identification name

Description

This keyword provides the name defining the Horizontal Datum. The name space relates to the coding scheme defined by the GEO_TABLES keyword.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Horizontal_Datum>
  <HORIZONTAL_DATUM_NAME>Datum_Indian_1954</HORIZONTAL_DATUM_NAME>
  <HORIZONTAL_DATUM_CODE>epsg:6239</HORIZONTAL_DATUM_CODE>
  <Prime_Meridian>
    ...
  </Prime_Meridian>
  <Ellipsoid>
    ...
  </Ellipsoid>
</Horizontal_Datum>
```

Datatype : (t_HORIZONTAL_DATUM_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Horizontal_Datum**

<HORIZONTAL_DATUM_CODE> Dimap_Generic, 1.0

Purpose

Horizontal datum shift identification code

Description

This keyword provides the unique identification code defining the Horizontal Datum. The code relates to the coding scheme defined by the GEO_TABLES keyword (it is highly recommended to use a names-pace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Horizontal_Datum>
  <HORIZONTAL_DATUM_NAME>Datum_Indian_1954</HORIZONTAL_DATUM_NAME>
  <HORIZONTAL_DATUM_CODE>epsg:6239</HORIZONTAL_DATUM_CODE>
  <Prime_Meridian>
    ...
  </Prime_Meridian>
  <Ellipsoid>
    ...
  </Ellipsoid>
</Horizontal_Datum>
```

Datatype : (t_HORIZONTAL_DATUM_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Horizontal_Datum**

<Prime_Meridian>

Dimap_Generic, 1.0

Purpose

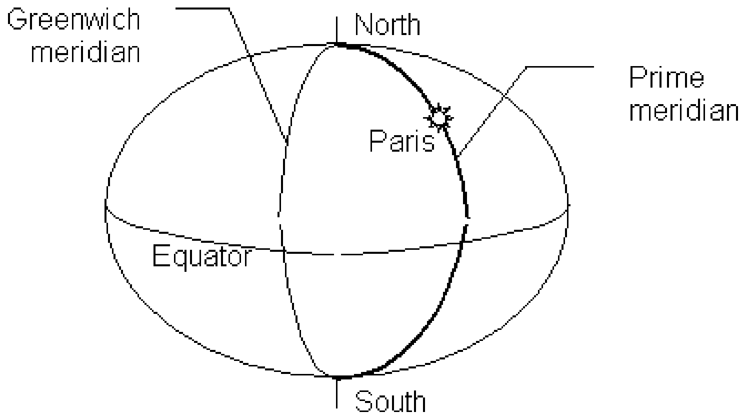
Prime Meridian description

Description

Prime Meridian description is part of the Coordinate_Reference_System/Geographic_CS information.

Please refer to the Dimap Documentation for more details.

Illustration



Example

```
<Prime_Meridian>
  <PRIME_MERIDIAN_NAME>Paris</PRIME_MERIDIAN_NAME>
  <PRIME_MERIDIAN_CODE>epsg:8903</PRIME_MERIDIAN_CODE>
  <PRIME_MERIDIAN_OFFSET unit="GON">2.5969</PRIME_MERIDIAN_OFFSET>
</Prime_Meridian>
```

Datatype : (t_Prime_Meridian)

Unordered sub-elements :

- PRIME_MERIDIAN_NAME , minOccurs=0
- PRIME_MERIDIAN_CODE , minOccurs=0
- PRIME_MERIDIAN_OFFSET , minOccurs=0 , CM if PRIME_MERIDIAN_CODE not present

Possible parents :

- **Horizontal_Datum**

<PRIME_MERIDIAN_NAME>

Dimap_Generic, 1.0

Purpose

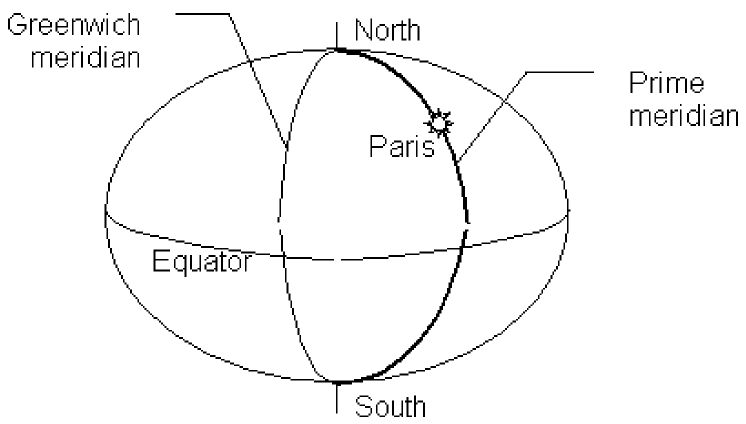
Prime meridian identification name

Description

This record provides the name of the prime meridian of the geographic coordinate system. It gives the textual information associated to PRIME_MERIDIAN_CODE

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Prime_Meridian>
  <PRIME_MERIDIAN_NAME>Paris</PRIME_MERIDIAN_NAME>
  <PRIME_MERIDIAN_CODE>epsg:8903</PRIME_MERIDIAN_CODE>
  <PRIME_MERIDIAN_OFFSET unit="GON">2.5969</PRIME_MERIDIAN_OFFSET>
</Prime_Meridian>
```

Datatype : (t_PRIME_MERIDIAN_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Prime_Meridian**

<PRIME_MERIDIAN_CODE> Dimap_Generic, 1.0

Purpose

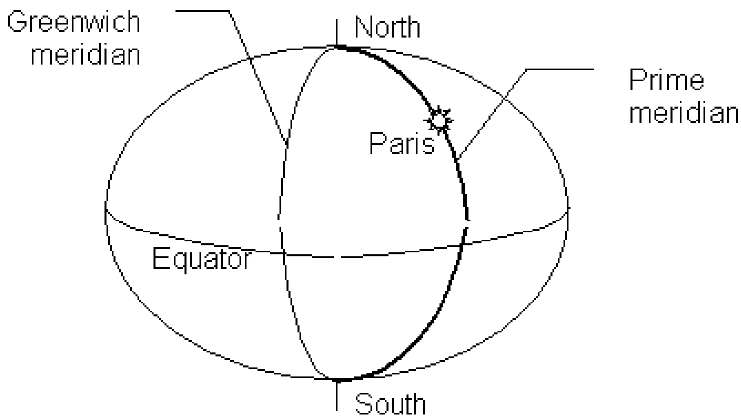
Prime meridian identification code

Description

This record provides the code for identification of the prime meridian of the geographic coordinate system, and used for georeferencing the current map. The code refers to the coding system indicated in GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Prime_Meridian>
  <PRIME_MERIDIAN_NAME>Paris</PRIME_MERIDIAN_NAME>
  <PRIME_MERIDIAN_CODE>epsg:8903</PRIME_MERIDIAN_CODE>
  <PRIME_MERIDIAN_OFFSET unit="GON">2.5969</PRIME_MERIDIAN_OFFSET>
</Prime_Meridian>
```

Datatype : (t_PRIME_MERIDIAN_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Prime_Meridian**

<PRIME_MERIDIAN_OFFSET> Dimap_Generic, 1.0

Purpose

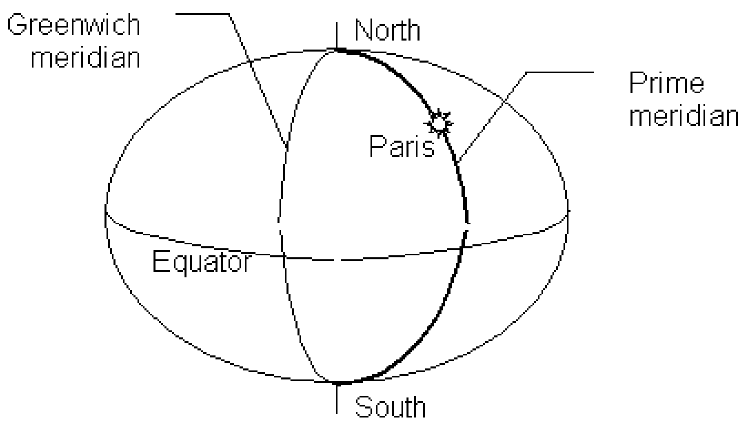
Prime meridian offset towards Greenwich meridian

Description

This record provides the angular offset of the prime meridian of the geographic coordinate system. It is measured from the Greenwich meridian and is positive towards East .

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Prime_Meridian>
  <PRIME_MERIDIAN_NAME>Paris</PRIME_MERIDIAN_NAME>
  <PRIME_MERIDIAN_CODE>epsg:8903</PRIME_MERIDIAN_CODE>
  <PRIME_MERIDIAN_OFFSET unit="GON">2.5969</PRIME_MERIDIAN_OFFSET>
</Prime_Meridian>
```

Datatype : (t_PRIME_MERIDIAN_OFFSET)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_PRIME_MERIDIAN_OFFSET_Angular_Unit

Datatype : (k_PRIME_MERIDIAN_OFFSET_Angular_Unit)
Restriction of String
- DEG
- DMS
- MNT
- SEC
- GON
- RAD

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_15_1.1, xpath=//Prime_Meridian/PRIME_MERIDIAN_OFFSET

CM if PRIME_MERIDIAN_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Prime_Meridian**

<Ellipsoid>

Dimap_Generic, 1.0

Purpose

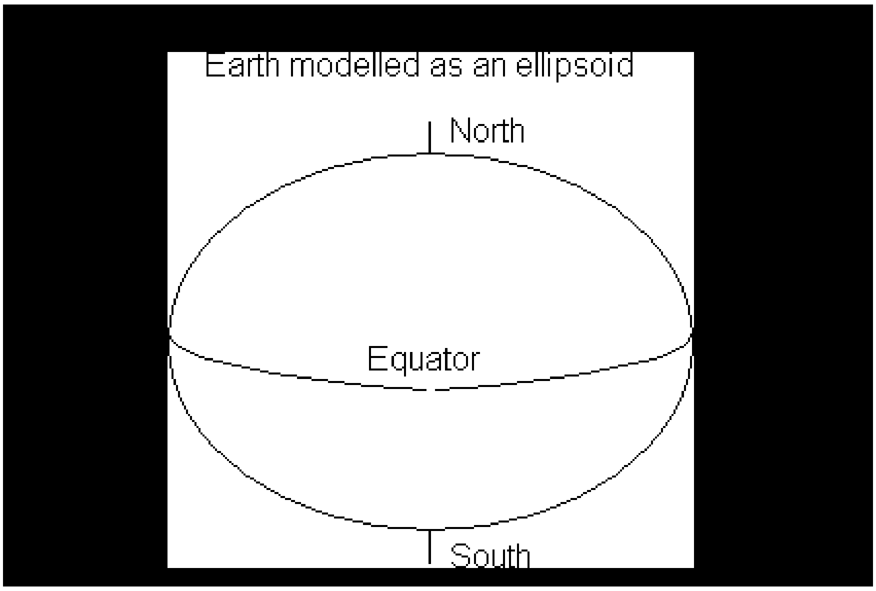
Ellipsoid description

Description

Ellipsoid description is part of the CRS description. It is used to model the Earth surface. Tens of different ellipsoids are currently in use in different countries, mainly for historical reasons.

Please refer to the Dimap Documentation for a complete description of the Dimap Geodetic scheme.

Illustration



Example

```
<Ellipsoid>
  <ELLIPSOID_NAME>Ellipse_Everest_1830_1937_Adjustment</ELLIPSOID_NAME>
  <ELLIPSOID_CODE>epsg:7015</ELLIPSOID_CODE>
</Ellipsoid>

or

<Ellipsoid>
  <ELLIPSOID_NAME>Special Ellipsoid</ELLIPSOID_NAME>
  <Ellipsoid_Parameters>
    ...
  </Ellipsoid_Parameters>
</Ellipsoid>
```

Datatype : (t_Ellipsoid)

Unordered sub-elements :

- ELLIPSOID_NAME , minOccurs=0
- ELLIPSOID_CODE , minOccurs=0
- Ellipsoid_Parameters , minOccurs=0 , CM if ELLIPSOID_CODE not present

Special constraint : id=C_16_1.1, xpath=//Horizontal_Datum/Ellipsoid

CM if HORIZONTAL_DATUM_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Horizontal_Datum**

<ELLIPSOID_NAME> Dimap_Generic, 1.0

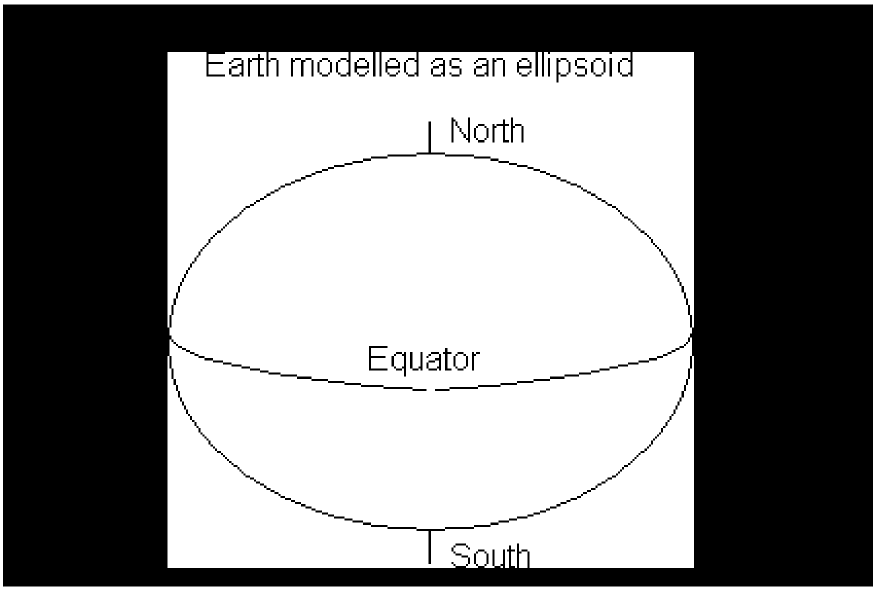
Purpose

Ellipsoid textual description (name)

Description

This record is expected to provide a humanly readable ellispoid identification. Though the value field is free text, the identification should be non ambiguous: standard or full name, country, year...Often the name can be automatically derived from the code through the geodetic tables in use (GEO_TABLES).

Illustration



Example

```
<Ellipsoid>
  <ELLIPSOID_NAME>Ellipse_Everest_1830_1937_Adjustment</ELLIPSOID_NAME>
  <ELLIPSOID_CODE>epsg:7015</ELLIPSOID_CODE>
</Ellipsoid>

or

<Ellipsoid>
  <ELLIPSOID_NAME>Special Ellipsoid</ELLIPSOID_NAME>
  <Ellipsoid_Parameters>
    ...
  </Ellipsoid_Parameters>
</Ellipsoid>
```

Datatype : (t_ELLIPSOID_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Ellipsoid**

<ELLIPSOID_CODE>

Dimap_Generic, 1.0

Purpose

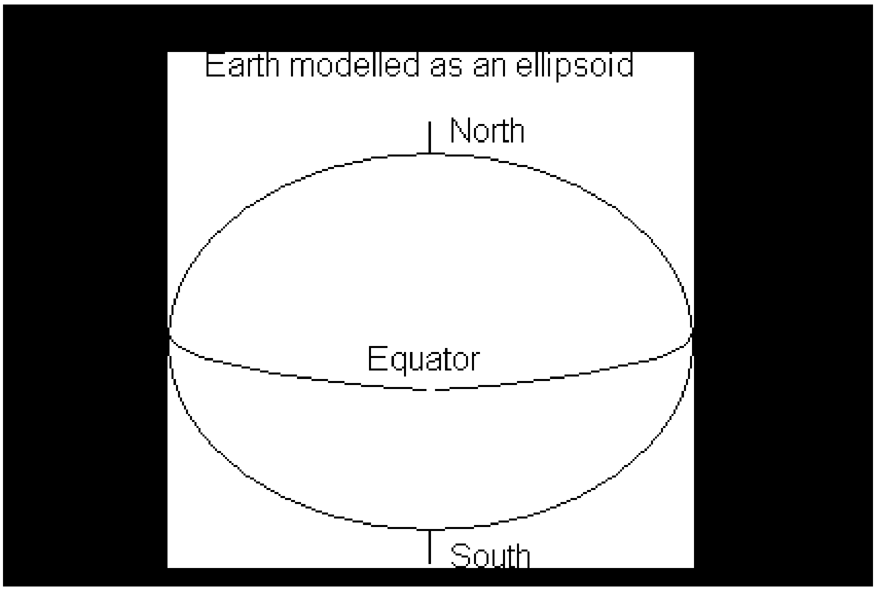
Ellipsoid identification code

Description

This record provides the ellipsoid identification code according to the tables specified by GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself). Please note that this code can be either a number or a string of characters (no blanks).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Ellipsoid>
  <ELLIPSOID_NAME>Ellipse_Everest_1830_1937_Adjustment</ELLIPSOID_NAME>
  <ELLIPSOID_CODE>epsg:7015</ELLIPSOID_CODE>
</Ellipsoid>

or

<Ellipsoid>
  <ELLIPSOID_NAME>Special Ellipsoid</ELLIPSOID_NAME>
  <Ellipsoid_Parameters>
    ...
  </Ellipsoid_Parameters>
</Ellipsoid>
```

Datatype : (t_ELLIPSOID_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Ellipsoid**

<Ellipsoid_Parameters>

Dimap_Generic, 1.0

Purpose

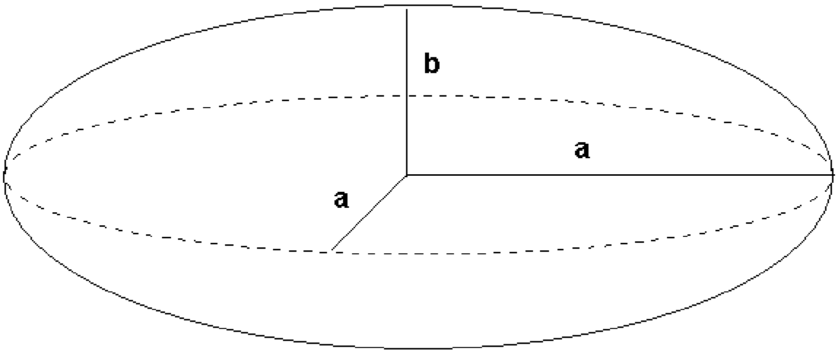
Ellipsoid parameters

Description

Ellipsoid parameters are part of the CRS description. The Ellipsoid parameters mathematically define the shape of Earth.

Please refer to the Dimap Documentation for a complete description of the Dimap Geodetic scheme.

Illustration



Example

```
<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_MIN_AXIS unit="M">62341234.3<ELLIPSOID_MIN_AXIS>
</Ellipsoid_Parameters>

or

<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_INV_FLAT>308.0<ELLIPSOID_INV_FLAT>
</Ellipsoid_Parameters>
```

Datatype : (t_Ellipsoid_Parameters)

Ordered sub-elements :

- ELLIPSOID_MAJOR_AXIS

Special constraint : id=C_17_1.1, xpath=//Ellipsoid/Ellipsoid_Parameters

CM if ELLIPSOID_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Ellipsoid**

<ELLIPSOID_MINOR_AXIS>

Dimap_Generic, 1.0

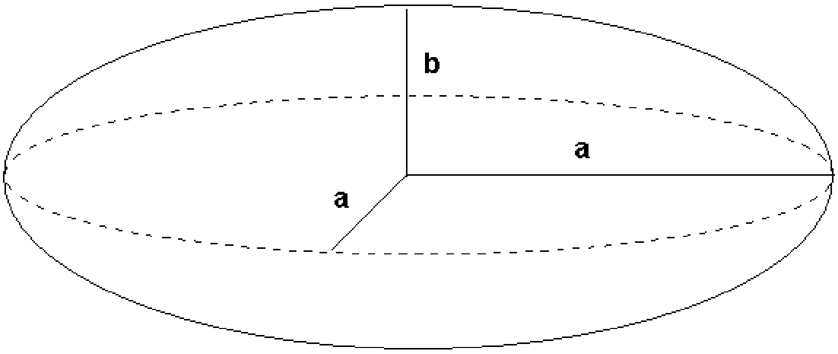
Purpose

Ellipsoid semi-minor axis value

Description

This record provides the value of the semi-minor axis of the ellipsoid used. It is used in conjunction with the ELLIPSOID_MAJOR_AXIS keyword.

Illustration



Example

```
<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_MIN_AXIS unit="M">62341234.3<ELLIPSOID_MIN_AXIS>
</Ellipsoid_Parameters>

or

<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_INV_FLAT>308.0<ELLIPSOID_INV_FLAT>
</Ellipsoid_Parameters>
```

Datatype : (t_ELLIPSOID_MINOR_AXIS)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_ELLIPSOID_MINOR_AXIS_Linear_Unit

Datatype : (k_ELLIPSOID_MINOR_AXIS_Linear_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***

- *CM*
- *KM*
- *FTIND*
- *SFT*

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Ellipsoid_Parameters**

<ELLIPSOID_INVERSE_FLATTENING> Dimap_Generic, 1.0

Purpose

Ellipsoid inverse of flattening value

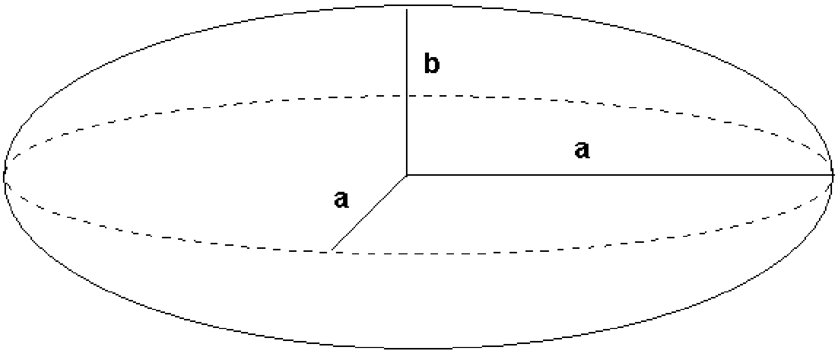
Description

This record provides the inverse of the flattening of the ellipsoid used. The value has no unit (since its is a ratio). It is used in conjunction with the ELLIPSOID_MAJOR_AXIS keyword as an alternative to ELLIPSOID_MINOR_AXIS.

If ELLIPSOID_INVERSE_FLATTENING is given, ELLIPSOID_MINOR_AXIS must not be provided to avoid redundancy.

ELLIPSOID_INVERSE_FLATTENING= ELLIPSOID_MAJOR_AXIS / (ELLIPSOID_MAJOR_AXIS - ELLIPSOID_MINOR_AXIS)

Illustration



Example

```
<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_MIN_AXIS unit="M">62341234.3<ELLIPSOID_MIN_AXIS>
</Ellipsoid_Parameters>

or

<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_INV_FLAT>308.0<ELLIPSOID_INV_FLAT>
</Ellipsoid_Parameters>
```

Datatype : (t_ELLIPSOID_INVERSE_FLATTENING)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- **Ellipsoid_Parameters**

<ELLIPSOID_MAJOR_AXIS> Dimap_Generic, 1.0

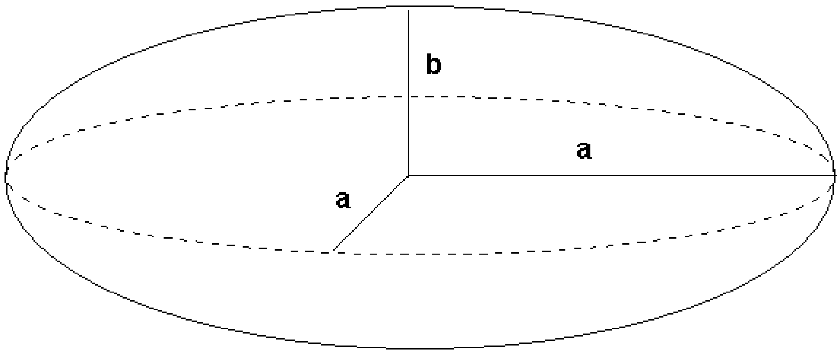
Purpose

Ellipsoid semi-major axis value

Description

This record provides the value of the semi-major axis of the ellipsoid used. It must be used in conjunction with the ELLIPSOID_MINOR_AXIS keyword or (exclusive) with ELLIPSOID_INVERSE_FLATTENING.

Illustration



Example

```
<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_MIN_AXIS unit="M">62341234.3<ELLIPSOID_MIN_AXIS>
</Ellipsoid_Parameters>

or

<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_INV_FLAT>308.0<ELLIPSOID_INV_FLAT>
</Ellipsoid_Parameters>
```

Datatype : (t_ELLIPSOID_MAJOR_AXIS)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_ELLIPSOID_MAJOR_AXIS_Linear_Unit

Datatype : (k_ELLIPSOID_MAJOR_AXIS_Linear_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***

- *CM*
- *KM*
- *FTIND*
- *SFT*

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Ellipsoid_Parameters**

<Projection>

Dimap_Generic, 1.0

Purpose

Projection description

Description

The Projection description is part of the Coordinate_Reference_System/Horizontal_CS description.

Please refer to the Dimap Documentation for more details.

Example

```
<Projection>
  <PROJECTION_NAME>UTM zone 31N</PROJECTION_NAME>
  <PROJECTION_CODE>16031</PROJECTION_CODE>
</Projection>

or

<Projection>
  <PROJECTION_NAME>Tranverse Mercator Bangladesh</PROJECTION_NAME>
  <Projection_CT_Method>
    ...
  </Projection_CT_Method>
 </Projection>
```

Datatype : (t_Projection)

Unordered sub-elements :

- PROJECTION_NAME , minOccurs=0
- PROJECTION_CODE , minOccurs=0
- Projection_CT_Method , minOccurs=0 , CM if PROJECTION_CODE not present

Special constraint : id=C_13_2.1, xpath=//Horizontal_CS/Projection

CM if HORIZONTAL_CS_CODE not present and HORIZONTAL_CS_TYPE=PROJECTED

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Horizontal_CS**

<PROJECTION_NAME>

Dimap_Generic, 1.0

Purpose

Projection identification name

Description

This keyword provides the identification name for the projection being used within the CRS (text definition corresponding to PROJECTION_CODE). The name should belong to the name space defined by the GEO_TABLES keyword.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection>
  <PROJECTION_NAME>UTM zone 31N</PROJECTION_NAME>
  <PROJECTION_CODE>16031</PROJECTION_CODE>
</Projection>

or

<Projection>
  <PROJECTION_NAME>Tranverse Mercator Bangladesh</PROJECTION_NAME>
  <Projection_CT_Method>
    ...
  </Projection_CT_Method>
 </Projection>
```

Datatype : (t_PROJECTION_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Projection**

<PROJECTION_CODE>

Dimap_Generic, 1.0

Purpose

Projection idendification code

Description

This record provides a unique identification code of the projection used within the CRS (Coordinate Reference System). The code range and the projection information attached to that entry is dependant upon the coding scheme being used, defined by GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection>
  <PROJECTION_NAME>UTM zone 31N</PROJECTION_NAME>
  <PROJECTION_CODE>16031</PROJECTION_CODE>
</Projection>

or

<Projection>
  <PROJECTION_NAME>Tranverse Mercator Bangladesh</PROJECTION_NAME>
  <Projection_CT_Method>
    ...
  </Projection_CT_Method>
 </Projection>
```

Datatype : (t_PROJECTION_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Projection**

<Projection_CT_Method>

Dimap_Generic, 1.0

Purpose

Projection : Coordinate Transform Method

Description

The Coordinate Transform Method is part of the Projection information. It identifies the set of mathematical equations used to perform the cartographic projection.

Please refer to the Dimap Documentation for more details.

Example

```
<Projection_CT_Method>
  <PROJECTION_CT_NAME>CT_TransverseMercator</PROJECTION_CT_NAME>
  <PROJECTION_CT_CODE>epsg:1</PROJECTION_CT_CODE>
  <Projection_Parameters>
    ...
  </Projection_Parameters>
</Projection_CT_Method>
```

Datatype : (t_Projection_CT_Method)

Unordered sub-elements :

- PROJECTION_CT_NAME
- PROJECTION_CT_CODE , minOccurs=0
- Projection_Parameters , minOccurs=0 , CM if PROJECTION_CT_CODE not present

Special constraint : id=C_19_1.1, xpath=//Projection/Projection_CT_Method

CM if PROJECTION_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Projection**

<PROJECTION_CT_NAME> Dimap_Generic, 1.0

Purpose

Projection coordinate transformation identification name

Description

This keyword provides the identification name for the Coordinate Transform method. The Coordinate Transform method is a set of mathemetical relationships between the Geographic Coordinate System and the Cartographic Coordinate System associated to a set of parameters. The name should belong to the name space defined by the GEO_TABLES keyword.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection_CT_Method>
  <PROJECTION_CT_NAME>CT_TransverseMercator</PROJECTION_CT_NAME>
  <PROJECTION_CT_CODE>epsg:1</PROJECTION_CT_CODE>
  <Projection_Parameters>
    ...
  </Projection_Parameters>
</Projection_CT_Method>
```

Datatype : (t_PROJECTION_CT_NAME)

Simple content :
Extension of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Projection_CT_Method**

<PROJECTION_CT_CODE>

Dimap_Generic, 1.0

Purpose

Projection coordinate transform identification code

Description

This keyword provides the unique identification code for the Coordinate Transform method. The Coordinate Transform method is a set of mathemetical relationships between the Geographic Coordinate System and the Cartographic Coordinate System associated to a set of parameters. The code range is dependant upon the coding scheme being used, defined by GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection_CT_Method>
  <PROJECTION_CT_NAME>CT_TransverseMercator</PROJECTION_CT_NAME>
  <PROJECTION_CT_CODE>epsg:1</PROJECTION_CT_CODE>
  <Projection_Parameters>
    ...
  </Projection_Parameters>
</Projection_CT_Method>
```

Datatype : (t_PROJECTION_CT_CODE)

Restriction of Code

Datatype : (Code)

Restriction of xsd:string

Possible parents :

- **Projection_CT_Method**

<Projection_Parameters>

Dimap_Generic, 1.0

Purpose

Projection parameters associated to the CT_Method

Description

The Projection parameters are part of the Projection description. This group holds all the individual Parameter groups.

Please refer to the Dimap Documentation for more details.

Example

```
<Projection_Parameters>
  <Projection_Parameter>
    ...
  </Projection_Parameter>
  <Projection_Parameter>
    ...
   </Projection_Parameter>
    ...
</Projection_Parameters>
```

Datatype : (t_Projection_Parameters)

Ordered sub-elements :

- Projection_Parameter , maxOccurs=unbounded

Special constraint : id=C_20_1.1, xpath=//Projection_CT_Method/Projection_Parameters

CM if PROJECTION_CT_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Projection_CT_Method**

<Projection_Parameter>

Dimap_Generic, 1.0

Purpose

Projection parameter description and value

Description

This group is part of the Projection description. It can be repeated as many times as necessary to describe all the needed parameters of a given projection.

Please refer to the Dimap Documentation for more details.

Example

```
<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjScaleAtNatOriginGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3092</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE>0.9998</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>

or

<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjFalseEastingGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3082</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE unit="M">500000.0</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>
```

Datatype : (t_Projection_Parameter)

Unordered sub-elements :

- PROJECTION_PARAMETER_NAME
- PROJECTION_PARAMETER_CODE , minOccurs=0
- PROJECTION_PARAMETER_VALUE

Possible parents :

- **Projection_Parameters**

<PROJECTION_PARAMETER_NAME> Dimap_Generic, 1.0

Purpose

Identification name of the current projection parameter

Description

This keyword provides the name of the projection parameter being described. The list of projection parameters is dependent upon the chosen Projection Coordinate Transform (PROJECTION_CT_NAME/CODE). This name gives the textual definition asociated to PROJECTION_PARAMETER_CODE. The name space is defined by the GEO_TABLES keyword.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjScaleAtNatOriginGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3092</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE>0.9998</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>

or

<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjFalseEastingGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3082</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE unit="M">500000.0</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>
```

Datatype : (t_PROJECTION_PARAMETER_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Projection_Parameter**

<PROJECTION_PARAMETER_CODE>

Dimap_Generic, 1.0

Purpose

Identification code of a projection parameter

Description

This keyword provides the unique identification code for the projection parameter being described. The list of projection parameters is dependent upon the chosen Projection Coordinate Transform (PROJECTION_CT_NAME/CODE). The code range is defined by the GEO_TABLES keyword (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjScaleAtNatOriginGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3092</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE>0.9998</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>

or

<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjFalseEastingGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3082</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE unit="M">500000.0</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>
```

Datatype : (t_PROJECTION_PARAMETER_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Projection_Parameter**

<PROJECTION_PARAMETER_VALUE> Dimap_Generic, 1.0

Purpose

Value of the current projection parameter

Description

This keyword provides the value of the projection parameter being described. The list of projection parameters is dependent upon the chosen Projection Coordinate Transform (PROJECTION_CT_NAME/CODE). This value corresponds to the definition asociated to PRJECTION_PARAMETER_CODE.

Please note that the value type can be Angular, Linear or Real according to the nature of the parameter (false easting, central meridian, scale factor,...).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjScaleAtNatOriginGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3092</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE>0.9998</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>

or

<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjFalseEastingGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3082</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE unit="M">500000.0</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>
```

Datatype : (t_PROJECTION_PARAMETER_VALUE)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_PROJECTION_PARAMETER_VALUE_Unit

Datatype : (k_PROJECTION_PARAMETER_VALUE_Unit)
Restriction of String

- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***

- *GON*
- *RAD*

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Projection_Parameter**

<Coordinate_Axis>

Dimap_Generic, 1.0

Purpose

Coordinate axis description

Description

Coordinate axis description is used when nen-standard naming schemes are required (odd projections).

Example

```
<Coordinate_Axis>
   <AXIS1_NAME>Easting</AXIS1_NAME>
   <AXIS1_ORIENTATION>EAST</AXIS1_ORIENTATION>
   <AXIS2_NAME>Northing</AXIS2_NAME>
   <AXIS2_ORIENTATION>NORTH</AXIS2_ORIENTATION>
</Coordinate_Axis>
```

Datatype : (t_Coordinate_Axis)

Unordered sub-elements :

- AXIS1_NAME
- AXIS1_ORIENTATION
- AXIS2_NAME
- AXIS2_ORIENTATION

Possible parents :

- **Horizontal_CS**

<AXIS1_NAME>

Dimap_Generic, 1.0

Purpose

X (first) axis name

Description

This keyword provides a way to name the CRS first axis in the case they are not simply X and Y. Examples :

- "Easting"
- "Y" (odd projections where X and Y are reversed for historical reasons)

Please note that the X and Y letters in the Dimap keyword names (such as ULXMAP, ULYMAP, XDIM, YDIM, FRAME_X, FRAME_Y . . .) refer to axis1 and axis2 (in this order), whatever the name of these axis may be. Since this can be quite tricky, we advise to carefully use axis renaming and orientation.

Example

```
<Coordinate_Axis>
   <AXIS1_NAME>Easting</AXIS1_NAME>
   <AXIS1_ORIENTATION>EAST</AXIS1_ORIENTATION>
   <AXIS2_NAME>Northing</AXIS2_NAME>
   <AXIS2_ORIENTATION>NORTH</AXIS2_ORIENTATION>
</Coordinate_Axis>
```

Datatype : (t_AXIS1_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Coordinate_Axis**

<AXIS1_ORIENTATION>

Dimap_Generic, 1.0

Purpose

X (first) axis orientation

Description

This keyword provides a way to change the orientation of the CRS first axis in the case it is not obvious.
Examples :

- WEST
- NORTH

Example

```
<Coordinate_Axis>
   <AXIS1_NAME>Easting</AXIS1_NAME>
   <AXIS1_ORIENTATION>EAST</AXIS1_ORIENTATION>
   <AXIS2_NAME>Northing</AXIS2_NAME>
   <AXIS2_ORIENTATION>NORTH</AXIS2_ORIENTATION>
</Coordinate_Axis>
```

Datatype : (t_AXIS1_ORIENTATION)

Restriction of Cardinal_Points

Datatype : (Cardinal_Points)
Restriction of xsd:string
- *EAST*
- *NORTH*
- *WEST*
- *SOUTH*

Possible parents :

- **Coordinate_Axis**

<AXIS2_NAME> Dimap_Generic, 1.0

Purpose

Y (second) axis name

Description

This keyword provides a way to name the CRS second axis in the case they are not simply X and Y. Examples :

- "Northing"
- "X" (odd projections where X and Y are reversed for historical reasons)

Please note that the X and Y letters in the Dimap keyword names (such as ULXMAP, ULYMAP, XDIM, YDIM, FRAME_X, FRAME_Y . . .) refer to axis1 and axis2 (in this order), whatever the name of these axis may be. Since this can be quite tricky, we advise to carefully use axis renaming and orientation.

Example

```
<Coordinate_Axis>
   <AXIS1_NAME>Easting</AXIS1_NAME>
   <AXIS1_ORIENTATION>EAST</AXIS1_ORIENTATION>
   <AXIS2_NAME>Northing</AXIS2_NAME>
   <AXIS2_ORIENTATION>NORTH</AXIS2_ORIENTATION>
</Coordinate_Axis>
```

Datatype : (t_AXIS2_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Coordinate_Axis**

<AXIS2_ORIENTATION>

Dimap_Generic, 1.0

Purpose

Y (second) axis orientation

Description

This keyword provides a way to change the orientation of the CRS second axis in the case it is not obvious. Examples :

- WEST
- NORTH

Example

```
<Coordinate_Axis>
   <AXIS1_NAME>Easting</AXIS1_NAME>
   <AXIS1_ORIENTATION>EAST</AXIS1_ORIENTATION>
   <AXIS2_NAME>Northing</AXIS2_NAME>
   <AXIS2_ORIENTATION>NORTH</AXIS2_ORIENTATION>
</Coordinate_Axis>
```

Datatype : (t_AXIS2_ORIENTATION)

Restriction of Cardinal_Points

Datatype : (Cardinal_Points)
Restriction of xsd:string
- *EAST*
- *NORTH*
- *WEST*
- *SOUTH*

Possible parents :

- **Coordinate_Axis**

<Vertical_CS>

Dimap_Generic, 1.0

Purpose

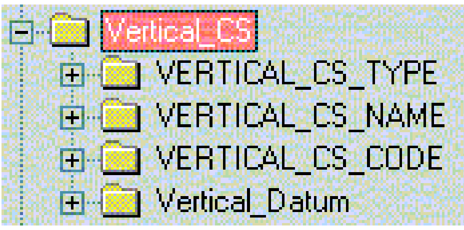
Vertical Coordinate System description

Description

Vertical Coordinate System description is part of the CRS description. It is used only when 3D data is involved (DEMs for example).

Please refer to the Dimap Documentation for more details.

Illustration



Example

```
<Vertical_CS purpose="Vertical Coordinate System description">
  <VERTICAL_CS_TYPE>HEIGHT</VERTICAL_CS_TYPE>
  <VERTICAL_CS_NAME>Marseille mean sea level</VERTICAL_CS_NAME>
  <VERTICAL_CS_CODE>epsg:1234</VERTICAL_CS_CODE>
  <Vertical_Datum>
    ...
  </Vertical_Datum>
</Vertical_CS>
```

Datatype : (t_Vertical_CS)

Unordered sub-elements :

- VERTICAL_CS_TYPE
- VERTICAL_CS_NAME
- VERTICAL_CS_CODE , minOccurs=0
- Vertical_Datum , minOccurs=0 , CM if VERTICAL_CS_CODE not present

Possible parents :

- **Coordinate_Reference_System**

<VERTICAL_CS_TYPE>

Dimap_Generic, 1.0

Purpose

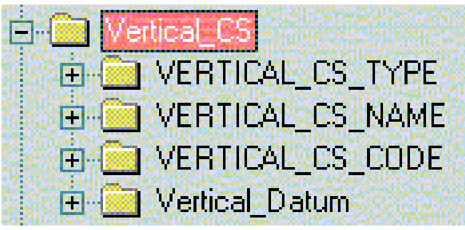
Vertical Coordinate System type

Description

Vertical Coordinate System type is either HEIGHT or DEPTH. Discussion of the implications behind these definitions is beyond the scope of this documentation.

Please refer to Cartography/Geodesy reference literature.

Illustration



Example

```
<Vertical_CS purpose="Vertical Coordinate System description">
  <VERTICAL_CS_TYPE>HEIGHT</VERTICAL_CS_TYPE>
  <VERTICAL_CS_NAME>Marseille mean sea level</VERTICAL_CS_NAME>
  <VERTICAL_CS_CODE>epsg:1234</VERTICAL_CS_CODE>
  <Vertical_Datum>
    ...
  </Vertical_Datum>
</Vertical_CS>
```

Datatype : (t_VERTICAL_CS_TYPE)

Restriction of Vertical_CS_Types

Datatype : (Vertical_CS_Types)
Restriction of xsd:string
- *HEIGHT*
- *DEPTH*

Possible parents :

- **Vertical_CS**

<VERTICAL_CS_NAME>

Dimap_Generic, 1.0

Purpose

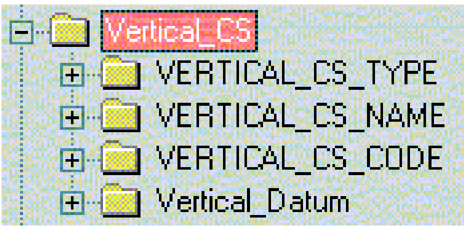
Vertical Coordinate System identification name

Description

Vertical Coordinate System identification name. The name should belong to a listed name defined by GEO_TABLES.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Vertical_CS purpose="Vertical Coordinate System description">
  <VERTICAL_CS_TYPE>HEIGHT</VERTICAL_CS_TYPE>
  <VERTICAL_CS_NAME>Marseille mean sea level</VERTICAL_CS_NAME>
  <VERTICAL_CS_CODE>epsg:1234</VERTICAL_CS_CODE>
  <Vertical_Datum>
    ...
  </Vertical_Datum>
</Vertical_CS>
```

Datatype : (t_VERTICAL_CS_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Vertical_CS**

<VERTICAL_CS_CODE>

Dimap_Generic, 1.0

Purpose

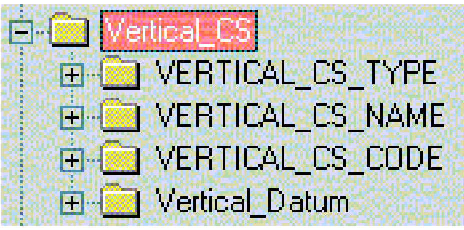
Vertical Coordinate System identification code

Description

Vertical Coordinate System identification code. The coding scheme is defined by GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Vertical_CS purpose="Vertical Coordinate System description">
  <VERTICAL_CS_TYPE>HEIGHT</VERTICAL_CS_TYPE>
  <VERTICAL_CS_NAME>Marseille mean sea level</VERTICAL_CS_NAME>
  <VERTICAL_CS_CODE>epsg:1234</VERTICAL_CS_CODE>
  <Vertical_Datum>
    ...
  </Vertical_Datum>
</Vertical_CS>
```

Datatype : (t_VERTICAL_CS_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Vertical_CS**

<Vertical_Datum>

Dimap_Generic, 1.0

Purpose

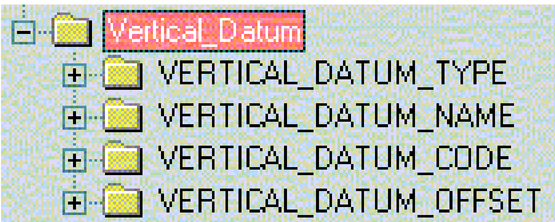
Vertical Datum description

Description

Vertical Datum description is part of the CRS description. It is used only when 3D data is involved (DEMs for example).

Please refer to the Dimap Documentation for more details.

Illustration



Example

```
<Vertical_Datum>
   <VERTICAL_DATUM_NAME>Yellow Sea, China</VERTICAL_DATUM_NAME>
   <VERTICAL_DATUM_CODE>epsg:5704</VERTICAL_DATUM_CODE>
   <VERTICAL_DATUM_TYPE>GEOIDAL</VERTICAL_DATUM_TYPE>
   <VERTICAL_DATUM_OFFSET unit='M'>23.0</VERTICAL_DATUM_OFFSET>
</Vertical_Datum>
```

Datatype : (t_Vertical_Datum)

Unordered sub-elements :

- VERTICAL_DATUM_TYPE
- VERTICAL_DATUM_NAME
- VERTICAL_DATUM_CODE , minOccurs=0
- VERTICAL_DATUM_OFFSET , minOccurs=0

Special constraint : id=C_24_1.1, xpath=//Vertical_CS/Vertical_Datum

CM if VERTICAL_CS_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Vertical_CS**

<VERTICAL_DATUM_TYPE>

Dimap_Generic, 1.0

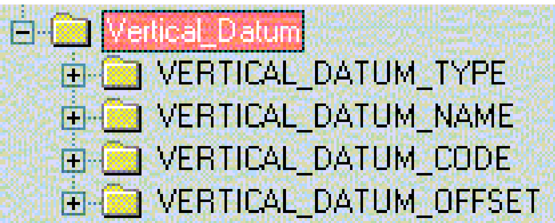
Purpose

Vertical Datum type

Description

Defines the reference surface used for the vertical coordinate system. This can be ELLIPSOIDAL if the elevation is measured as the normal distance above the ellipsoid, or ORTHOMETRIC if the elevation is measured above the geoid (or mean sea level).

Illustration



Example

```
<Vertical_Datum>
   <VERTICAL_DATUM_NAME>Yellow Sea, China</VERTICAL_DATUM_NAME>
   <VERTICAL_DATUM_CODE>epsg:5704</VERTICAL_DATUM_CODE>
   <VERTICAL_DATUM_TYPE>GEOIDAL</VERTICAL_DATUM_TYPE>
   <VERTICAL_DATUM_OFFSET unit='M'>23.0</VERTICAL_DATUM_OFFSET>
</Vertical_Datum>
```

Datatype : (t_VERTICAL_DATUM_TYPE)

Restriction of Vertical_Datum_Types

Datatype : (Vertical_Datum_Types)
Restriction of xsd:string
- ***ELLIPSOIDAL***
- ***GEOIDAL***
- ***OTHER***

Possible parents :

- **Vertical_Datum**

<VERTICAL_DATUM_NAME>

Dimap_Generic, 1.0

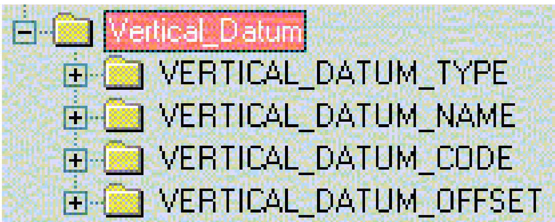
Purpose

Vertical Datum identification name

Description

This field provides the name of the vertical datum, used as reference surface for vertical coordinates or height/depth related attribute values in the current layer. The name space is indicated by GEO_TABLES.

Illustration



Example

```
<Vertical_Datum>
   <VERTICAL_DATUM_NAME>Yellow Sea, China</VERTICAL_DATUM_NAME>
   <VERTICAL_DATUM_CODE>epsg:5704</VERTICAL_DATUM_CODE>
   <VERTICAL_DATUM_TYPE>GEOIDAL</VERTICAL_DATUM_TYPE>
   <VERTICAL_DATUM_OFFSET unit='M'>23.0</VERTICAL_DATUM_OFFSET>
</Vertical_Datum>
```

Datatype : (t_VERTICAL_DATUM_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Vertical_Datum**

<VERTICAL_DATUM_CODE>

Dimap_Generic, 1.0

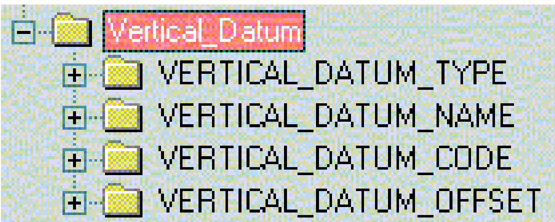
Purpose

Vertical Datum identification code

Description

This field provides the identification of the vertical datum, used as reference surface for vertical coordinates or height/depth related attribute values in the current layer. It refers to a standard national or international coding system as indicated in GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Illustration



Example

```
<Vertical_Datum>
   <VERTICAL_DATUM_NAME>Yellow Sea, China</VERTICAL_DATUM_NAME>
   <VERTICAL_DATUM_CODE>epsg:5704</VERTICAL_DATUM_CODE>
   <VERTICAL_DATUM_TYPE>GEOIDAL</VERTICAL_DATUM_TYPE>
   <VERTICAL_DATUM_OFFSET unit='M'>23.0</VERTICAL_DATUM_OFFSET>
</Vertical_Datum>
```

Datatype : (t_VERTICAL_DATUM_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Vertical_Datum**

<VERTICAL_DATUM_OFFSET>

Dimap_Generic, 1.0

Purpose

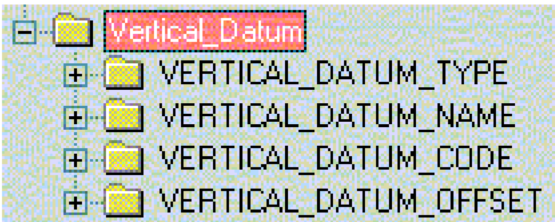
Vertical datum offset

Description

This record provides the offset of the Z coordinates relative to the defined vertical coordinate system. It is measured from the Origin of the Vertical Coordinate System to the new vertical origin.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Vertical_Datum>
   <VERTICAL_DATUM_NAME>Yellow Sea, China</VERTICAL_DATUM_NAME>
   <VERTICAL_DATUM_CODE>epsg:5704</VERTICAL_DATUM_CODE>
   <VERTICAL_DATUM_TYPE>GEOIDAL</VERTICAL_DATUM_TYPE>
   <VERTICAL_DATUM_OFFSET unit='M'>23.0</VERTICAL_DATUM_OFFSET>
</Vertical_Datum>
```

Datatype : (t_VERTICAL_DATUM_OFFSET)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_VERTICAL_DATUM_OFFSET_Linear_Unit

Datatype : (k_VERTICAL_DATUM_OFFSET_Linear_Unit)
Restriction of String

- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***

Datatype : (String)
Restriction of xsd:string

Possible parents :

Dimap : Digital Image Map xml metadata documentation

- **Vertical_Datum**

<Raster_CS>

Dimap_Generic, 1.0

Purpose

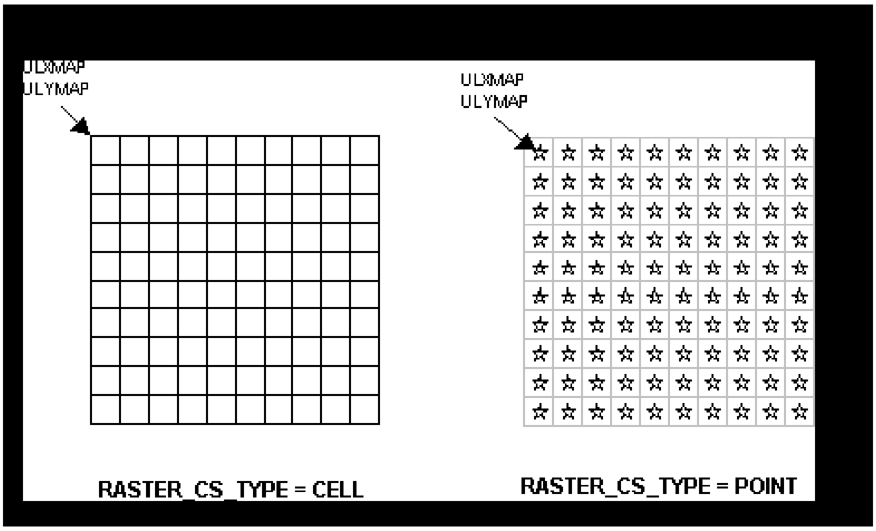
Raster data Coordinate System description

Description

Raster data Coordinate System description is used to deliver some detailed information about how to use the raster pixel coordinate system space.

The types of raster currently supported are only grids, with orthogonal axis. Future versions of Dimap may allow more complex types of grids such as hexagonal shape cells.

Illustration



Example

```
<Raster_CS>
  <RASTER_CS_TYPE>CELL</RASTER_CS_TYPE>
  <PIXEL_ORIGIN>0</PIXEL_ORIGIN>
</Raster_CS>
```

Datatype : (t_Raster_CS)

Unordered sub-elements :

- RASTER_CS_TYPE
- PIXEL_ORIGIN , minOccurs=0

Possible parents :

- **Dimap_Document**

<RASTER_CS_TYPE>

Dimap_Generic, 1.0

Purpose

Raster Coordinate System type

Description

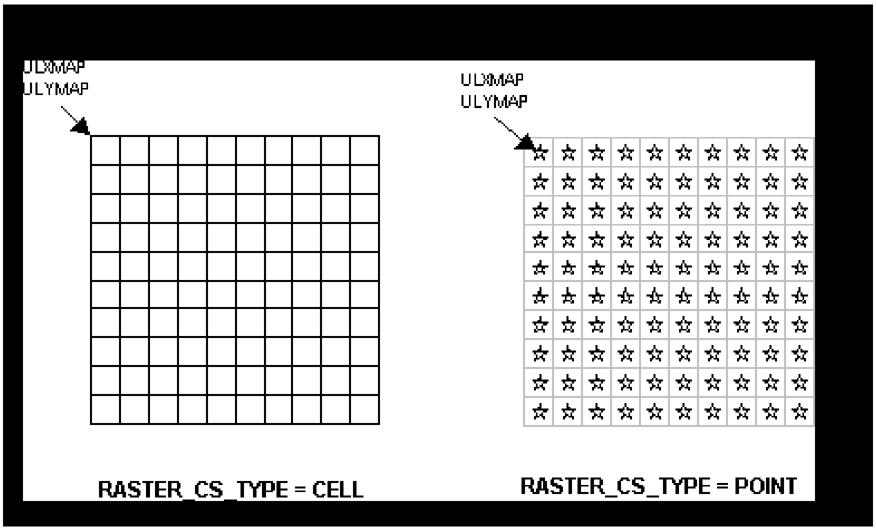
The raster pixel array can be considered as a series of points or as a series of adjacent cells depending on the type of data the raster is representing.

This has a direct consequence on the interpretation of ULXMAP and ULYMAP keywords. This location (expressed in the dataset CRS) can be located at the center of the top-left most pixel (RASTER_CS_TYPE=POINT) or at the upper-left of that same pixel.

By default RASTER_CS_TYPE = CELL.

In the future other raster types could be used such as hexagonal cells.

Illustration



Example

```
<Raster_CS>
  <RASTER_CS_TYPE>CELL</RASTER_CS_TYPE>
  <PIXEL_ORIGIN>0</PIXEL_ORIGIN>
</Raster_CS>
```

Datatype : (t_RASTER_CS_TYPE)

Restriction of Raster_CS_Types

Datatype : (Raster_CS_Types)
Restriction of xsd:string
- POINT
- CELL

Possible parents :

- **Raster_CS**

<PIXEL_ORIGIN>

Dimap_Generic, 1.0

Purpose

Raster Coordinate System pixel count start

Description

The raster pixel array can start from 0 or 1 depending on the production context and the habits.

This has a direct consequence on the interpretation of pixel coordinates keywords. If PIXEL_ORIGIN is set to 0 (which is the default), the first pixel starts from 0.0. Therefore if RASTER_CS_TYPE is CELL, then the 0.0, 0.0 raster coordinates relate to the top-left corner of the top-left cell of the pixel array (in this case 0.5,0.5 is the center of the top-left raster pixel). Usually, if RASTER_CS_TYPE is POINT then PIXEL_ORIGIN is set to 1 (this is not systematic but the way it is generally done); as a consequence, in that latter case, the 1.0,1.0 pixel coordinate points to the center of the top-left corner pixel.

By default (when not cited) PIXEL_ORIGIN = 0.

Example

```
<Raster_CS>
  <RASTER_CS_TYPE>CELL</RASTER_CS_TYPE>
  <PIXEL_ORIGIN>0</PIXEL_ORIGIN>
</Raster_CS>
```

Datatype : (t_PIXEL_ORIGIN)

Restriction of Pixel_Origins

Datatype : (Pixel_Origins)
Restriction of xsd:integer
Min value (inclusive) : 0
Max value (inclusive) : 1

Possible parents :

- **Raster_CS**

<Geoposition>

Dimap_Generic, 1.0

Purpose

Geopositioning information (dataset coordinates vs CRS coordinates)

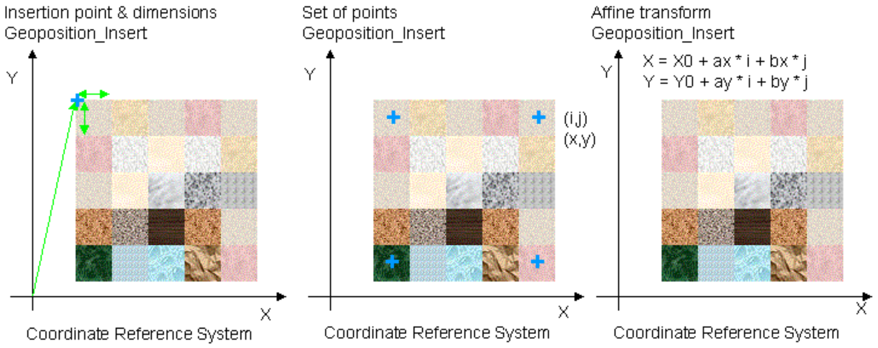
Description

Geopositioning is used to establish a mathematical relationship between the dataset coordinates space and the Coordinate Reference System defined through the Georeferencing set of information. Geopositioning can be performed in several different ways : Geoposition_Insert, Geoposition_Points, Geoposition_Affine.

- The first type (Geoposition_Insert) is the most commonly used for (ortho-)rectified datasets. In this case, the dataset coordinate space is superimposable with the CRS. Suffice it to deliver a single insertion point and a scale for both coordinate axis. For raster datasets; the top left corner is then used as the insertion point and the ground size of a pixel is given.
- The second type (Geoposition_Points) is generally used for approximate geopositioning; it provides a set of points cited in both coordinate spaces (dataset and CRS);it is up to the display system to build-up a mathematical relationship in order ti interpolate between those points (polynomial, rubbersheeting, ...).
- The third case (Geoposition_Affine) is used for general linear transformation (rotation, scale, sheering). For instance, it can be used to establish a simple coordinate matching between paper cordinates of a scanned map and CRS coordinates.

Geopositioning types are exclusive to each other.

Illustration



Example

```
<Geoposition>
  <Geosposition_Insert>
    ...
  </Geoposition_Insert>
</Geoposition>

or

<Geoposition>
  <Geosposition_Affine>
    ...
  </Geoposition_Affine>
</Geoposition>

or

<Geoposition>
  <Geosposition_Points>
    ...
  </Geoposition_Points>
</Geoposition>
```

Datatype : (t_Geoposition)

One of :

- Geoposition_Insert
- Geoposition_Points
- Geoposition_Affine

Possible parents :

- **Dimap_Document**

<Geoposition_Insert>

Dimap_Generic, 1.0

Purpose

Geopositioning by insertion point

Description

Geopositioning by insertion point is performed by a unique point (upper-left) and dimensions of pixel cells.

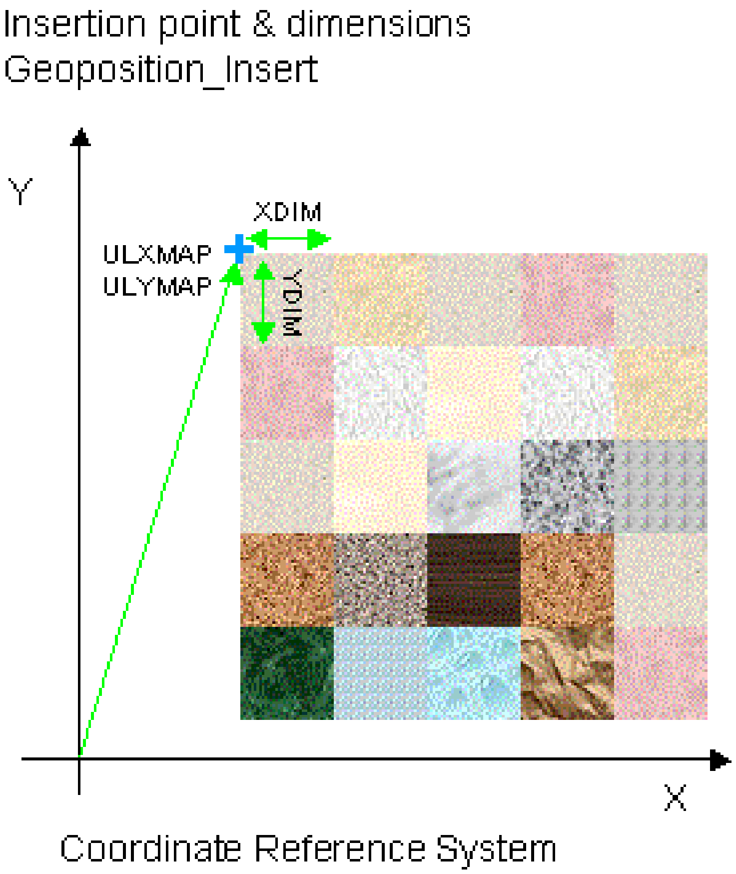
The relationship between raster and CRS coordinates is then the following :

- X = ULXMAP + XDIM * i
- Y = ULYMAP - YDIM * j

where (i,j) are floating point pixel coordinates starting from (0.0, 0.0); in the case when PIXEL_ORIGIN is set to 1, then i and j should be substracted 1.0 before the previous equations are applied. These equations are valid for standard axis orientations, they should be adapted (sign changed in front of XDIM or YDIM), should the Axis orientation are not eastwards and northwards.

Please refer to the Dimap Documentation for more details on Geopositioning and Georeferencing.

Illustration



Example

```
<Geoposition_Insert>
  <ULXMAP unit="M">593240.0</ULXMAP>
  <ULYMAP unit="M">4697200.0</ULYMAP>
  <XDIM unit="M">10.0</XDIM>
  <YDIM unit="M">10.0</YDIM>
</Geoposition_Insert>
```

Datatype : (t_Geoposition_Insert)

Unordered sub-elements :

- ULXMAP
- ULYMAP
- XDIM
- YDIM

Possible parents :

- **Geoposition**

<ULXMAP>

Dimap_Generic, 1.0

Purpose

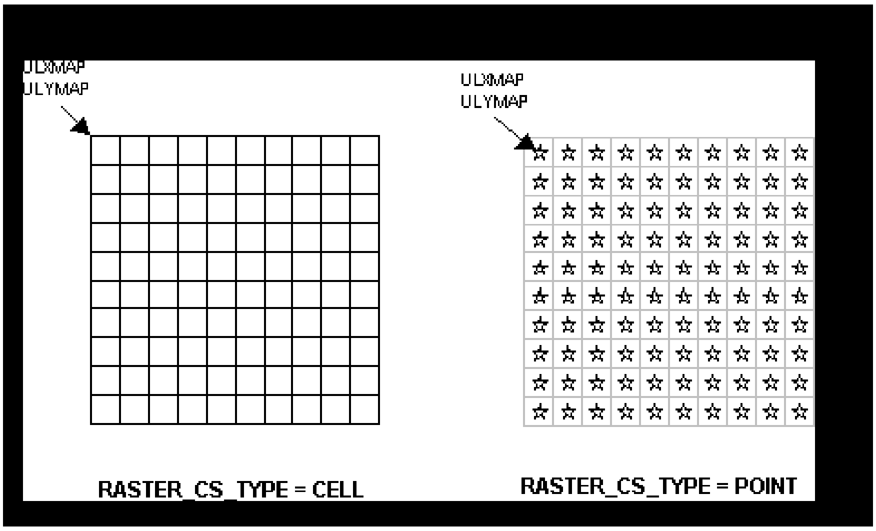
Upper-left pixel Coordinate Reference System X coordinate

Description

This record provides the CRS X coordinate of the upper-left raster image corner. It is expressed in the Coordinate Reference System defined by the Georeferencing keywords collection. The sub-pixel location pointed to by ULXMAP is dependant upon the RASTER_CS_TYPE keyword value.

The upper-left raster image corner is always pixel (0.0, 0.0) or (1.0,1.0) if PIXEL_ORIGIN is set to 1, independantly of the raster content. Therefore, the ULXMAP coordinate of a rotated image with black edges will be the leftmost location of the raster (and not the corner of the rotated image).

Illustration



Example

```
<Geoposition_Insert>
  <ULXMAP unit="M">593240.0</ULXMAP>
  <ULYMAP unit="M">4697200.0</ULYMAP>
  <XDIM unit="M">10.0</XDIM>
  <YDIM unit="M">10.0</YDIM>
</Geoposition_Insert>
```

Datatype : (t_ULXMAP)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_ULXMAP_Unit

Datatype : (k_ULXMAP_Unit)
Restriction of String
- M
- FT
- FTUS
- FTCLA
- LKCLA
- LKBEN
- CHBEN
- CHSEAR

- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geoposition_Insert**

<ULYMAP> Dimap_Generic, 1.0

Purpose

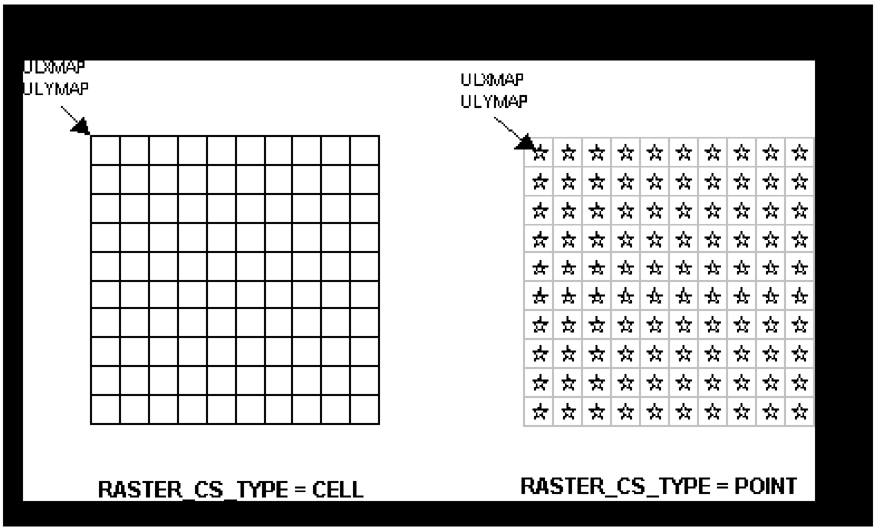
Upper-left pixel Coordinate Reference System Y coordinate

Description

This record provides the CRS Y coordinate of the upper-left raster image corner. It is expressed in the Coordinate Reference System defined by the Georeferencing keywords collection. The sub-pixel location pointed to by ULYMAP is dependant upon the RASTER_CS_TYPE keyword value.

The upper-left raster image corner is always pixel (0.0, 0.0) or (1.0,1.0) if PIXEL_ORIGIN is set to 1, independantly of the raster content. Therefore, the ULYMAP coordinate of a rotated image with black edges will be the top-most location of the raster (and not the corner of the rotated image).

Illustration



Example

```
<Geoposition_Insert>
  <ULXMAP unit="M">593240.0</ULXMAP>
  <ULYMAP unit="M">4697200.0</ULYMAP>
  <XDIM unit="M">10.0</XDIM>
  <YDIM unit="M">10.0</YDIM>
</Geoposition_Insert>
```

Datatype : (t_ULYMAP)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_ULYMAP_Unit

Datatype : (k_ULYMAP_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***

- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- Geoposition_Insert

<XDIM> Dimap_Generic, 1.0

Purpose

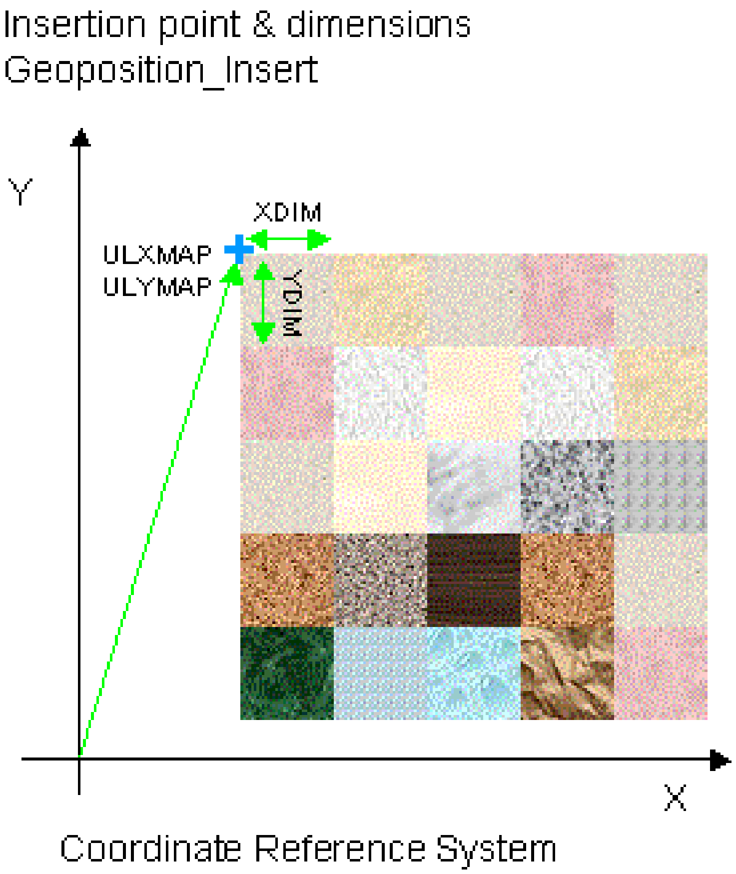
Pixel dimension along the column axis in the map coordinate space

Description

This keyword provides the column axis dimension of each pixel of the raster image. The value is expressed in the map coordinate space described by the Georeferencing keyword collection (Coordinate_Reference_System).

This value is positive, whatever the orientation of the coordinate axis may be.

Illustration



Example

```
<Geoposition_Insert>
  <ULXMAP unit="M">593240.0</ULXMAP>
  <ULYMAP unit="M">4697200.0</ULYMAP>
  <XDIM unit="M">10.0</XDIM>
  <YDIM unit="M">10.0</YDIM>
</Geoposition_Insert>
```

Datatype : (t_XDIM)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_XDIM_Unit

Datatype : (k_XDIM_Unit)

Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geoposition_Insert**

<YDIM>

Dimap_Generic, 1.0

Purpose

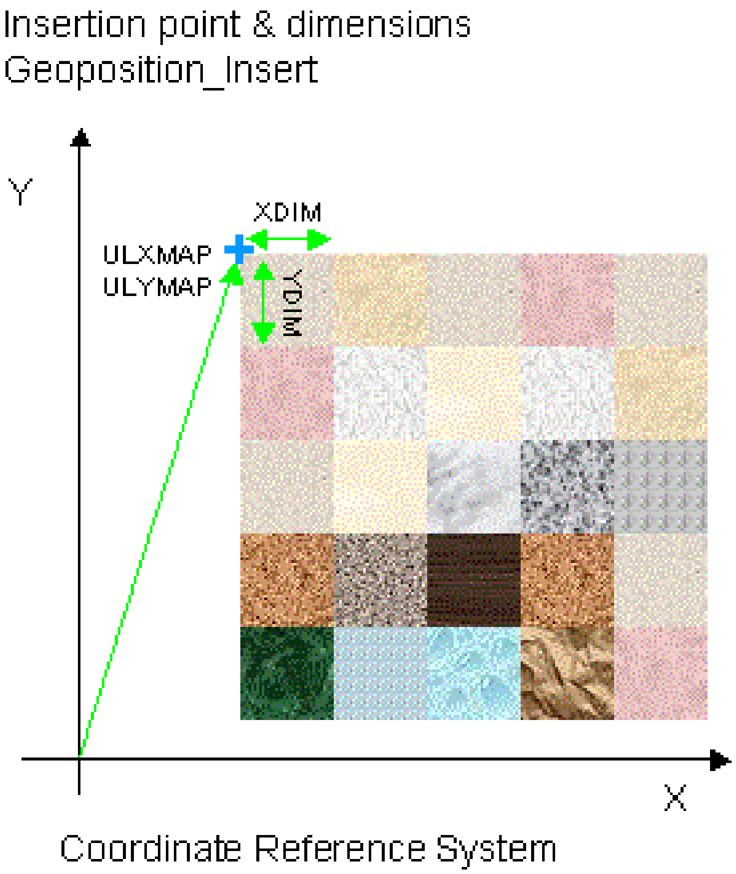
Pixel dimension along the row axis in the map coordinate space

Description

This keyword provides the rowaxis dimension of each pixel of the raster image. The value is expressed in the map coordinate space described by the Geocoding keyword collection (Coordinate_Reference_System).

This value is positive, whatever the orientation of the coordinate axis may be.

Illustration



Example

```
<Geoposition_Insert>
  <ULXMAP unit="M">593240.0</ULXMAP>
  <ULYMAP unit="M">4697200.0</ULYMAP>
  <XDIM unit="M">10.0</XDIM>
  <YDIM unit="M">10.0</YDIM>
</Geoposition_Insert>
```

Datatype : (t_YDIM)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_YDIM_Unit

Datatype : (k_YDIM_Unit)

Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geoposition_Insert**

<Geoposition_Points>

Dimap_Generic, 1.0

Purpose

Geopositioning by list of coincident points

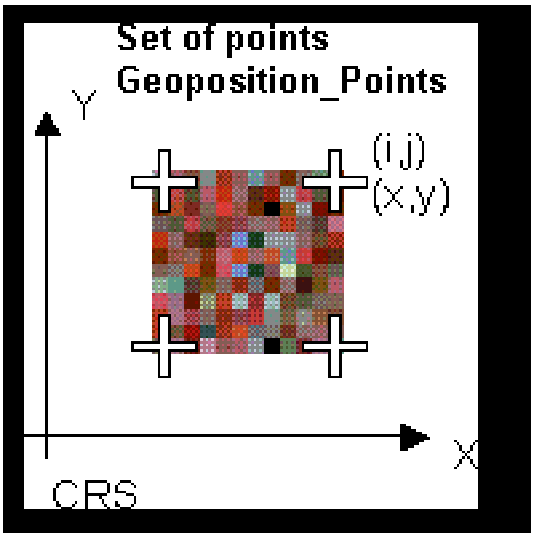
Description

Geopositioning by list of coincident points consist in delivering a set of tie points in both the native data coordinate system and in the CRS. In this case, the exploitation software is supposed to build up a transformation matrix or a rubber_sheeting match or a polynomial least square fit in order to get the geopositioning relationship.

Usually, this method is not very accurate. To be used only when poor geospositioning accuracy is acceptable or when no precise sensor geometric model is available.

Please refer to the Dimap Documentation for more details.

Illustration



Example

```
<Geoposition_Points>
  <Tie_Point>
    ...
  </Tie_Point>
  <Tie_Point>
    ...
  </Tie_Point>
   ...
</Geoposition_Points>
```

Datatype : (t_Geoposition_Points)

Ordered sub-elements :

- Tie_Point , maxOccurs=unbounded

Possible parents :

- **Geoposition**

<Tie_Point>

Dimap_Generic, 1.0

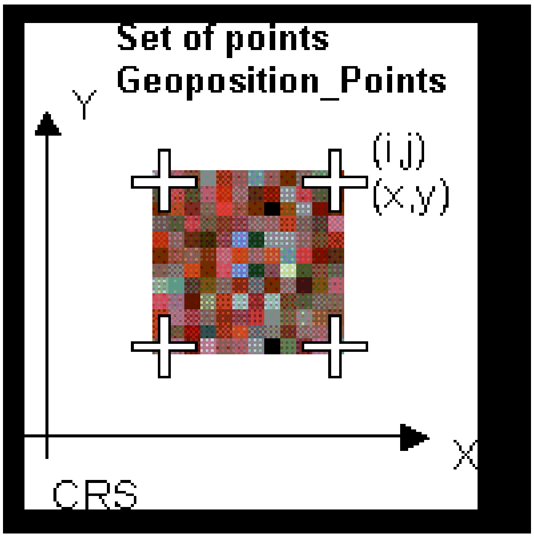
Purpose

Tie point coordinates

Description

Tie point are used for Geopsitioning by coincident points. A tie-point delivers a point coordinates in two coordinate spaces : data coordinates (i.e. rows and columns for raster images) and CRS coordinates. The Coordinate Reference System (CRS) space is fully described by the Coordinate_Reference_System Group (Georeferencing).

Illustration



Example

```
<Tie_Point>
  <TIE_POINT_CRS_X unit='M'>103456.0</TIE_POINT_CRS_X>
  <TIE_POINT_CRS_Y unit='M'>1467379.0</TIE_POINT_CRS_Y>
  <TIE_POINT_DATA_X>23.5</TIE_POINT_DATA_X>
  <TIE_POINT_DATA_Y>123.34</TIE_POINT_DATA_Y>
</Tie_Point>
```

Datatype : (t_Tie_Point)

Unordered sub-elements :

- TIE_POINT_CRS_X
- TIE_POINT_CRS_Y
- TIE_POINT_CRS_Z , minOccurs=0
- TIE_POINT_DATA_X
- TIE_POINT_DATA_Y

Possible parents :

- **Geoposition_Points**

<TIE_POINT_CRS_X>

Dimap_Generic, 1.0

Purpose

X coordinate, expressed in the dataset Coordinate Reference System , of the current tie point.

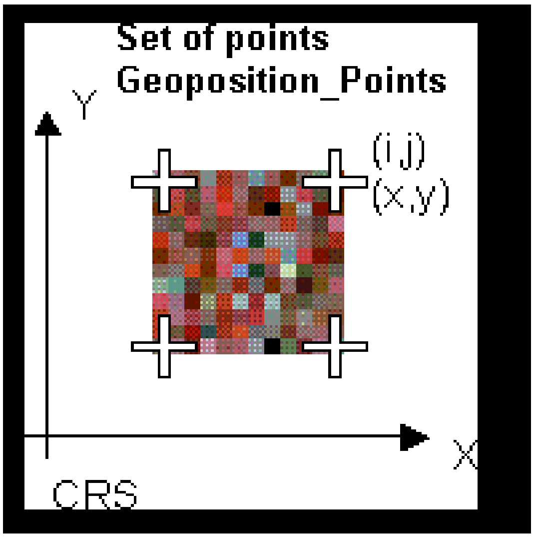
Description

Used to provide registration points (tie points) for Tie-Point Geopositioning. Tie points are point positions known in two different coordinate systems : the Coordinate Reference System of the dataset (in most of the cases a projected coord. Sys.) and in the internal, native, data coordinate system (sucha as rows and columns for raster data).

TIE_POINT_CRS_X gives the X coordinate of a tie point in the Coordinate Reference System space.

Please refer to the Dimap Documentation about Geopositioning schemes.

Illustration



Example

```
<Tie_Point>
  <TIE_POINT_CRS_X unit='M'>103456.0</TIE_POINT_CRS_X>
  <TIE_POINT_CRS_Y unit='M'>1467379.0</TIE_POINT_CRS_Y>
  <TIE_POINT_DATA_X>23.5</TIE_POINT_DATA_X>
  <TIE_POINT_DATA_Y>123.34</TIE_POINT_DATA_Y>
</Tie_Point>
```

Datatype : (t_TIE_POINT_CRS_X)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_TIE_POINT_CRS_X_Unit

Datatype : (k_TIE_POINT_CRS_X_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***

- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- Tie_Point

<TIE_POINT_CRS_Y> Dimap_Generic, 1.0

Purpose

Y coordinate, expressed in the dataset Coordinate Reference System , of the current tie point.

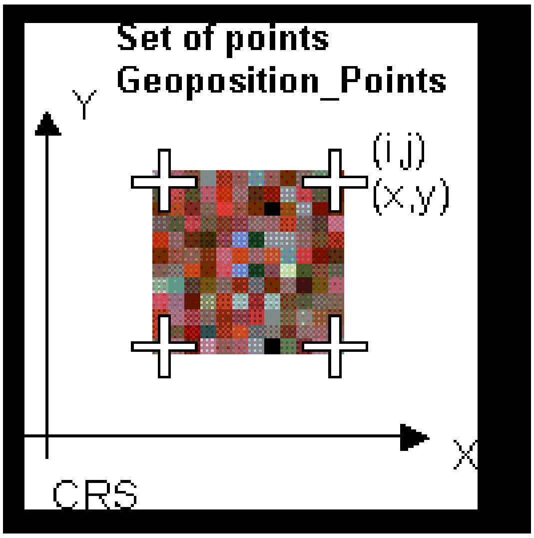
Description

Used to provide registration points (tie points) for Tie-Point Geopositioning. Tie points are point positions known in two different coordinate systems : the Coordinate Reference System of the dataset (in most of the cases a projected coord. Sys.) and in the internal, native, data coordinate system (sucha as rows and columns for raster data).

TIE_POINT_CRS_Y gives the Y coordinate of a tie point in the Coordinate Reference System space.

Please refer to the Dimap Documentation about Geopositioning schemes.

Illustration



Example

```
<Tie_Point>
  <TIE_POINT_CRS_X unit='M'>103456.0</TIE_POINT_CRS_X>
  <TIE_POINT_CRS_Y unit='M'>1467379.0</TIE_POINT_CRS_Y>
  <TIE_POINT_DATA_X>23.5</TIE_POINT_DATA_X>
  <TIE_POINT_DATA_Y>123.34</TIE_POINT_DATA_Y>
</Tie_Point>
```

Datatype : (t_TIE_POINT_CRS_Y)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_TIE_POINT_CRS_Y_Unit

Datatype : (k_TIE_POINT_CRS_Y_Unit)
Restriction of String

- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***

- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- Tie_Point

<TIE_POINT_CRS_Z>

Dimap_Generic, 1.0

Purpose

Z coordinate, expressed in the dataset Coordinate Reference System , of the current tie point.

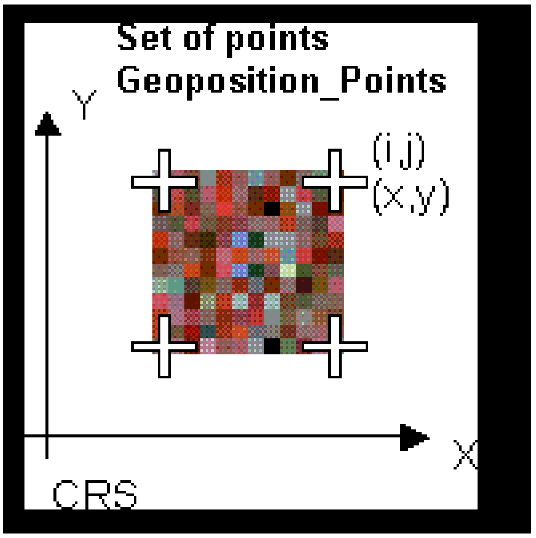
Description

Used to provide registration points (tie points) for Tie-Point Geopositioning. Tie points are point positions known in two different coordinate systems : the Coordinate Reference System of the dataset (in most of the cases a projected coord. Sys.) and in the internal, native, data coordinate system (such as rows and columns for raster data).

TIE_POINT_CRS_Z gives the Z coordinate of a tie point in the Coordinate Reference System space. The Z coordinate is often useless but might be useful when Tie points are used to carry GCP information for further geometric physical modelling of the image (case of low-level imagery)

Please refer to the Dimap Documentation about Geopositioning schemes.

Illustration



Example

```
<Tie_Point>
  <TIE_POINT_CRS_X unit='M'>103456.0</TIE_POINT_CRS_X>
  <TIE_POINT_CRS_Y unit='M'>1467379.0</TIE_POINT_CRS_Y>
  <TIE_POINT_DATA_X>23.5</TIE_POINT_DATA_X>
  <TIE_POINT_DATA_Y>123.34</TIE_POINT_DATA_Y>
</Tie_Point>
```

Datatype : (t_TIE_POINT_CRS_Z)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_TIE_POINT_CRS_Z_Unit

Datatype : (k_TIE_POINT_CRS_Z_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***

- CHBEN
- CHSEAR
- YDSEAR
- YDIND
- FTSEAR
- FM
- NM
- CM
- KM
- FTIND
- SFT
- DEG
- DMS
- MNT
- SEC
- GON
- RAD

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Tie_Point**

<TIE_POINT_DATA_X>

Dimap_Generic, 1.0

Purpose

X coordinate, expressed in the inner data coordinate system , of the current tie point.

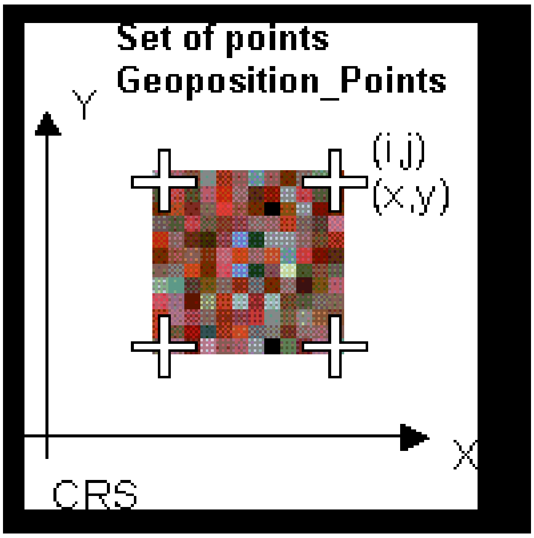
Description

Used to provide registration points (tie points) for Tie-Point Geopositioning. Tie points are point positions known in two different coordinate systems : the Coordinate Reference System of the dataset (in most of the cases a projected coord. Sys.) and in the internal, native, data coordinate system (sucha as rows and columns for raster data).

TIE_POINT_DATA_X gives the X coordinate of a tie point in the data coordinate system space (usually, this is the column index of pixel coordinates). Pixel coordinates start at 0.0, 0.0 or 1.0, 1.0 if PIXEL_ORIGIN is set to 1 (this particular location is either the top-left corner of the pixel or the center of the pixel of the upper-left pixel of the raster, depending on the value of RASTER_CS_TYPE).

Please refer to the Dimap Documentation about Geopositioning schemes.

Illustration



Example

```
<Tie_Point>
  <TIE_POINT_CRS_X unit='M'>103456.0</TIE_POINT_CRS_X>
  <TIE_POINT_CRS_Y unit='M'>1467379.0</TIE_POINT_CRS_Y>
  <TIE_POINT_DATA_X>23.5</TIE_POINT_DATA_X>
  <TIE_POINT_DATA_Y>123.34</TIE_POINT_DATA_Y>
</Tie_Point>
```

Datatype : (t_TIE_POINT_DATA_X)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- Tie_Point

<TIE_POINT_DATA_Y>

Dimap_Generic, 1.0

Purpose

Y coordinate, expressed in the inner data coordinate system , of the current tie point.

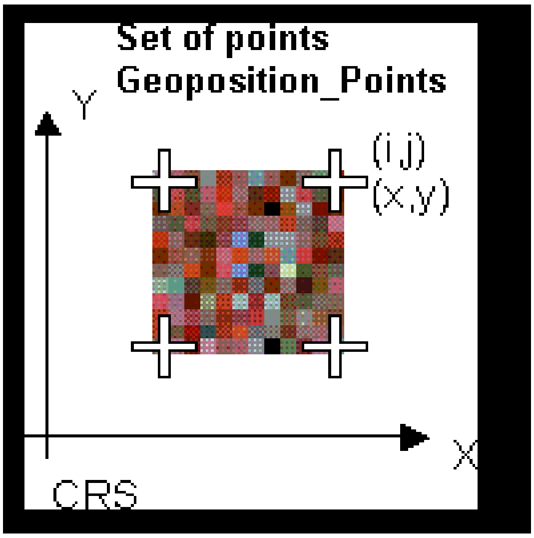
Description

Used to provide registration points (tie points) for Tie-Point Geopositioning. Tie points are point positions known in two different coordinate systems : the Coordinate Reference System of the dataset (in most of the cases a projected coord. Sys.) and in the internal, native, data coordinate system (sucha as rows and columns for raster data).

TIE_POINT_DATA_Y gives the XYcoordinate of a tie point in the data coordinate system space (usually, this is the row index of pixel coordinates). Pixel coordinates start at 0.0, 0.0 or 1.0, 1.0 if PIXEL_ORIGIN is set to 1 (this particular location is either the top-left corner of the pixel or the center of the upper-left pixel of the raster, depending on the value of RASTER_CS_TYPE). The row index (DATA_Y) coordinates are increasing downward.

Please refer to the Dimap Documentation about Geopositioning schemes.

Illustration



Example

```
<Tie_Point>
  <TIE_POINT_CRS_X unit='M'>103456.0</TIE_POINT_CRS_X>
  <TIE_POINT_CRS_Y unit='M'>1467379.0</TIE_POINT_CRS_Y>
  <TIE_POINT_DATA_X>23.5</TIE_POINT_DATA_X>
  <TIE_POINT_DATA_Y>123.34</TIE_POINT_DATA_Y>
</Tie_Point>
```

Datatype : (t_TIE_POINT_DATA_Y)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- Tie_Point

<Geoposition_Affine> Dimap_Generic, 1.0

Purpose

Affine geopositioning (linear scaling, sheering, rotation)

Description

The set of six affine parameters required to perform a general affine transform to go from data coordinates to CRS coordinates.

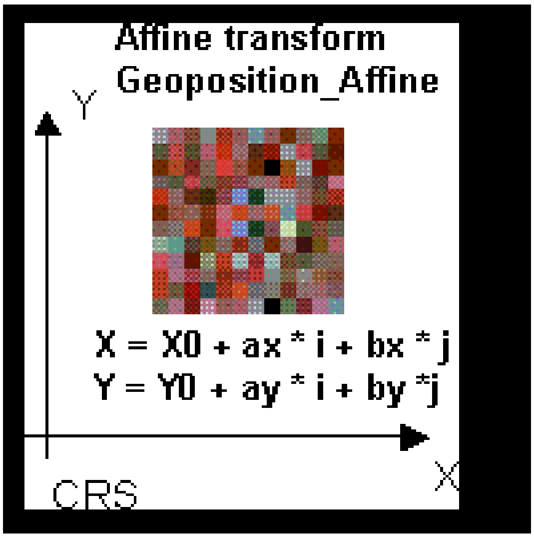
The value of these parameters have to be coherent with the pixel space coordinate settings (PIXEL_ORIGIN).

This set of affine transform parameters can also be used for vector coordinate transformation (such as unit change).

The formulae is :

- X (CRS) = X0 + X1 * X(Data) + X2 * Y(Data)
- Y (CRS) = Y0 + Y1 * X(Data) + Y2 * Y(Data)

Illustration



Example

```
<Geoposition_Affine>
  <AFFINE_X0 unit='M'>593240.0</AFFINE_X0>
  <AFFINE_X1 unit='M'>10.0</AFFINE_X1>
  <AFFINE_X2 unit='M'>-1.0</AFFINE_X2>
  <AFFINE_Y0 unit='M'>4697200.0</AFFINE_Y0>
  <AFFINE_Y1 unit='M'>10.0</AFFINE_Y1>
  <AFFINE_Y2 unit='M'>-1.0</AFFINE_Y2>
</Geoposition_Affine>
```

Datatype : (t_Geoposition_Affine)

Unordered sub-elements :

- AFFINE_X0
- AFFINE_X1
- AFFINE_X2
- AFFINE_Y0
- AFFINE_Y1

- AFFINE_Y2

Possible parents :

- **Geoposition**

<AFFINE_X0>

Dimap_Generic, 1.0

Purpose

X0 coefficient of an affine geopositionning transform

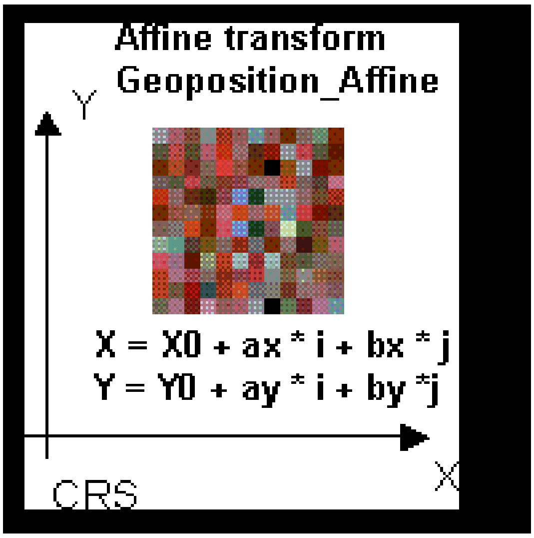
Description

This keyword delivers the value of the X0 coefficient of an affine transform. The affine transformation is used to model a simple linear geometric transform from data coordinates to CRS coordinates. The data coordinates can be either raster or vector coordinates depending on what type of data is attached to the Dimap document.The formulae is :

- X (CRS) = X0 + X1 * Data_X + X2 * Data_Y and
- Y (CRS) = Y0 + Y1 * Data_X + Y2 * Data_Y

with Data_{X,Y} being the data coordinates coming from the attached data file (i.e. Column and Row co-ordinates for Raster and x,y coordinates for Vectors)

Illustration



Example

```
<Geoposition_Affine>
  <AFFINE_X0 unit='M'>593240.0</AFFINE_X0>
  <AFFINE_X1 unit='M'>10.0</AFFINE_X1>
  <AFFINE_X2 unit='M'>-1.0</AFFINE_X2>
  <AFFINE_Y0 unit='M'>4697200.0</AFFINE_Y0>
  <AFFINE_Y1 unit='M'>10.0</AFFINE_Y1>
  <AFFINE_Y2 unit='M'>-1.0</AFFINE_Y2>
</Geoposition_Affine>
```

Datatype : (t_AFFINE_X0)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_AFFINE_X0_Unit

Datatype : (k_AFFINE_X0_Unit)
Restriction of String
- M
- FT
- FTUS
- FTCLA

- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geoposition_Affine**

<AFFINE_X1>

Dimap_Generic, 1.0

Purpose

X1 coefficient of an affine geopositionning transform

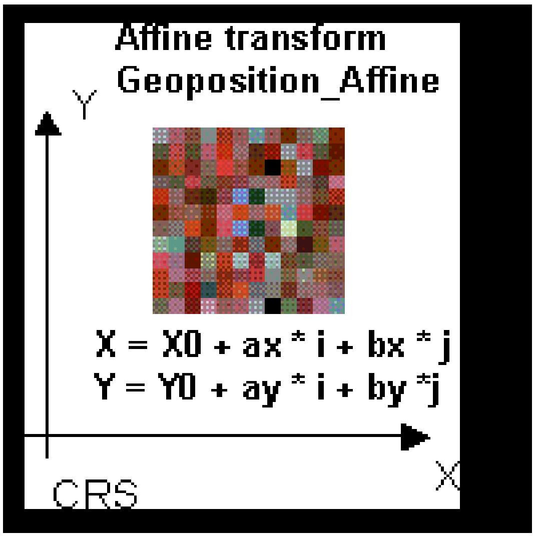
Description

This keyword delivers the value of the X1 coefficient of an affine transform. The affine transformation is used to model a simple linear geometric transform from data coordinates to CRS coordinates. The data coordinates can be either raster or vector coordinates depending on what type of data is attached to the Dimap document. The formulae is :

- X (CRS) = X0 + X1 * Data_X + X2 * Data_Y and
- Y (CRS) = Y0 + Y1 * Data_X + Y2 * Data_Y

with Data_{X,Y} being the data coordinates coming from the attached data file (i.e. Column and Row co-ordinates for Raster and x,y coordinates for Vectors)

Illustration



Example

```
<Geoposition_Affine>
  <AFFINE_X0 unit='M'>593240.0</AFFINE_X0>
  <AFFINE_X1 unit='M'>10.0</AFFINE_X1>
  <AFFINE_X2 unit='M'>-1.0</AFFINE_X2>
  <AFFINE_Y0 unit='M'>4697200.0</AFFINE_Y0>
  <AFFINE_Y1 unit='M'>10.0</AFFINE_Y1>
  <AFFINE_Y2 unit='M'>-1.0</AFFINE_Y2>
</Geoposition_Affine>
```

Datatype : (t_AFFINE_X1)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_AFFINE_X1_Unit

Datatype : (k_AFFINE_X1_Unit)
Restriction of String
- M
- FT
- FTUS
- FTCLA

- LKCLA
- LKBEN
- CHBEN
- CHSEAR
- YDSEAR
- YDIND
- FTSEAR
- FM
- NM
- CM
- KM
- FTIND
- SFT
- DEG
- DMS
- MNT
- SEC
- GON
- RAD

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geoposition_Affine**

<AFFINE_X2>

Dimap_Generic, 1.0

Purpose

X2 coefficient of an affine geopositionning transform

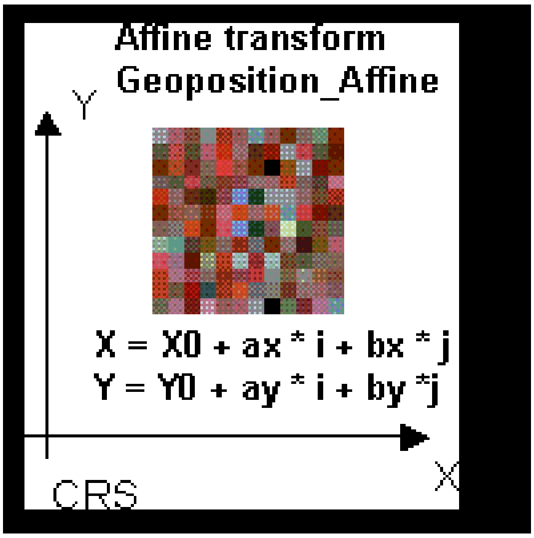
Description

This keyword delivers the value of the X2 coefficient of an affine transform. The affine transformation is used to model a simple linear geometric transform from data coordinates to CRS coordinates. The data coordinates can be either raster or vector coordinates depending on what type of data is attached to the Dimap document. The formulae is :

- X (CRS) = X0 + X1 * Data_X + X2 * Data_Y and
- Y (CRS) = Y0 + Y1 * Data_X + Y2 * Data_Y

with Data_{X,Y} being the data coordinates coming from the attached data file (i.e. Column and Row co-ordinates for Raster and x,y coordinates for Vectors)

Illustration



Example

```
<Geoposition_Affine>
  <AFFINE_X0 unit='M'>593240.0</AFFINE_X0>
  <AFFINE_X1 unit='M'>10.0</AFFINE_X1>
  <AFFINE_X2 unit='M'>-1.0</AFFINE_X2>
  <AFFINE_Y0 unit='M'>4697200.0</AFFINE_Y0>
  <AFFINE_Y1 unit='M'>10.0</AFFINE_Y1>
  <AFFINE_Y2 unit='M'>-1.0</AFFINE_Y2>
</Geoposition_Affine>
```

Datatype : (t_AFFINE_X2)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_AFFINE_X2_Unit

Datatype : (k_AFFINE_X2_Unit)
Restriction of String
- M
- FT
- FTUS
- FTCLA

- LKCLA
- LKBEN
- CHBEN
- CHSEAR
- YDSEAR
- YDIND
- FTSEAR
- FM
- NM
- CM
- KM
- FTIND
- SFT
- DEG
- DMS
- MNT
- SEC
- GON
- RAD

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geoposition_Affine**

<AFFINE_Y0>

Dimap_Generic, 1.0

Purpose

Y0 coefficient of an affine geopositionning transform

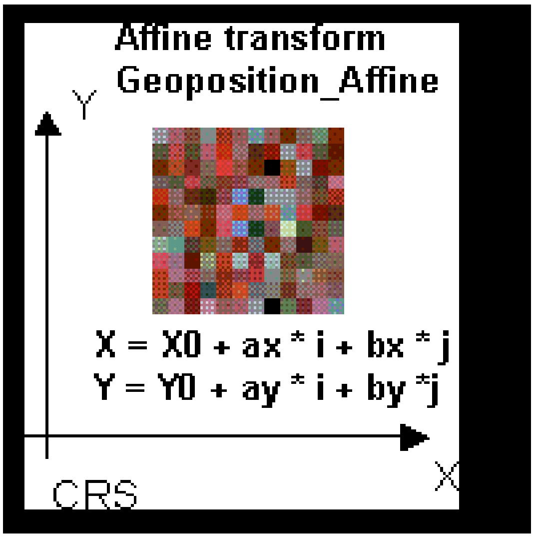
Description

This keyword delivers the value of the Y0 coefficient of an affine transform. The affine transformation is used to model a simple linear geometric transform from data coordinates to CRS coordinates. The data coordinates can be either raster or vector coordinates depending on what type of data is attached to the Dimap document. The formulae is :

- X (CRS) = X0 + X1 * Data_X + X2 * Data_Y and
- Y (CRS) = Y0 + Y1 * Data_X + Y2 * Data_Y

with Data_{X,Y} being the data coordinates coming from the attached data file (i.e. Column and Row co-ordinates for Raster and x,y coordinates for Vectors)

Illustration



Example

```
<Geoposition_Affine>
  <AFFINE_X0 unit='M'>593240.0</AFFINE_X0>
  <AFFINE_X1 unit='M'>10.0</AFFINE_X1>
  <AFFINE_X2 unit='M'>-1.0</AFFINE_X2>
  <AFFINE_Y0 unit='M'>4697200.0</AFFINE_Y0>
  <AFFINE_Y1 unit='M'>10.0</AFFINE_Y1>
  <AFFINE_Y2 unit='M'>-1.0</AFFINE_Y2>
</Geoposition_Affine>
```

Datatype : (t_AFFINE_Y0)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_AFFINE_Y0_Unit

Datatype : (k_AFFINE_Y0_Unit)
Restriction of String
- M
- FT
- FTUS
- FTCLA

- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geoposition_Affine**

<AFFINE_Y1>

Dimap_Generic, 1.0

Purpose

Y1 coefficient of an affine geopositionning transform

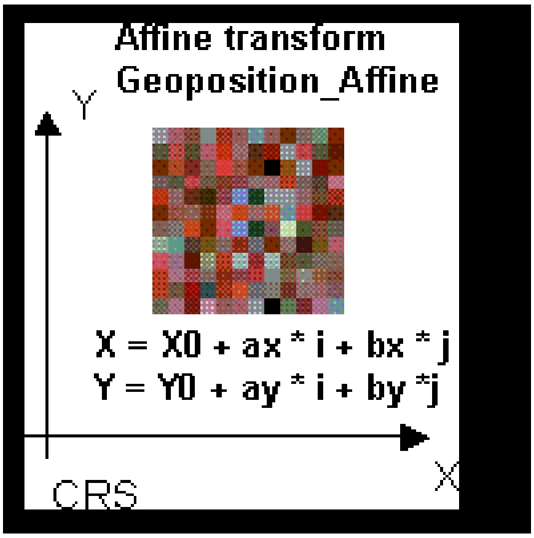
Description

This keyword delivers the value of the Y1 coefficient of an affine transform. The affine transformation is used to model a simple linear geometric transform from data coordinates to CRS coordinates. The data coordinates can be either raster or vector coordinates depending on what type of data is attached to the Dimap document. The formulae is :

- X (CRS) = X0 + X1 * Data_X + X2 * Data_Y and
- Y (CRS) = Y0 + Y1 * Data_X + Y2 * Data_Y

with Data_{X,Y} being the data coordinates coming from the attached data file (i.e. Column and Row co-ordinates for Raster and x,y coordinates for Vectors)

Illustration



Example

```
<Geoposition_Affine>
  <AFFINE_X0 unit='M'>593240.0</AFFINE_X0>
  <AFFINE_X1 unit='M'>10.0</AFFINE_X1>
  <AFFINE_X2 unit='M'>-1.0</AFFINE_X2>
  <AFFINE_Y0 unit='M'>4697200.0</AFFINE_Y0>
  <AFFINE_Y1 unit='M'>10.0</AFFINE_Y1>
  <AFFINE_Y2 unit='M'>-1.0</AFFINE_Y2>
</Geoposition_Affine>
```

Datatype : (t_AFFINE_Y1)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_AFFINE_Y1_Unit

Datatype : (k_AFFINE_Y1_Unit)
Restriction of String
- M
- FT
- FTUS
- FTCLA

- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geoposition_Affine**

<AFFINE_Y2>

Dimap_Generic, 1.0

Purpose

Y2 coefficient of an affine geopositionning transform

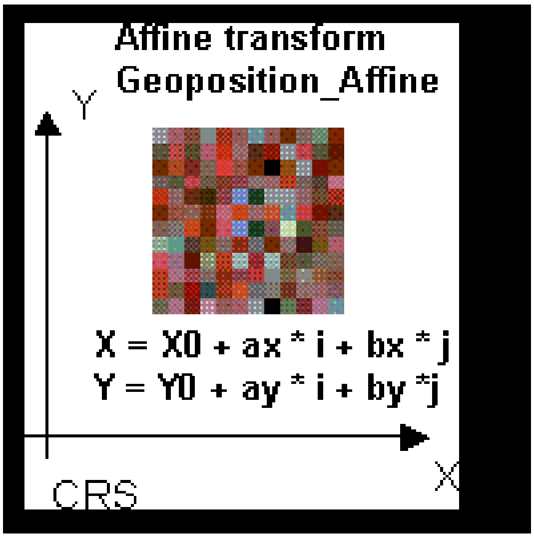
Description

This keyword delivers the value of the Y2 coefficient of an affine transform. The affine transformation is used to model a simple linear geometric transform from data coordinates to CRS coordinates. The data coordinates can be either raster or vector coordinates depending on what type of data is attached to the Dimap document. The formulae is :

- X (CRS) = X0 + X1 * Data_X + X2 * Data_Y and
- Y (CRS) = Y0 + Y1 * Data_X + Y2 * Data_Y

with Data_{X,Y} being the data coordinates coming from the attached data file (i.e. Column and Row co-ordinates for Raster and x,y coordinates for Vectors)

Illustration



Example

```
<Geoposition_Affine>
  <AFFINE_X0 unit='M'>593240.0</AFFINE_X0>
  <AFFINE_X1 unit='M'>10.0</AFFINE_X1>
  <AFFINE_X2 unit='M'>-1.0</AFFINE_X2>
  <AFFINE_Y0 unit='M'>4697200.0</AFFINE_Y0>
  <AFFINE_Y1 unit='M'>10.0</AFFINE_Y1>
  <AFFINE_Y2 unit='M'>-1.0</AFFINE_Y2>
</Geoposition_Affine>
```

Datatype : (t_AFFINE_Y2)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_AFFINE_Y2_Unit

Datatype : (k_AFFINE_Y2_Unit)
Restriction of String
- M
- FT
- FTUS
- FTCLA

- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geoposition_Affine**

<Map_Declination>

Dimap_Generic, 1.0

Purpose

Map Declination angles (grid and magnetic)

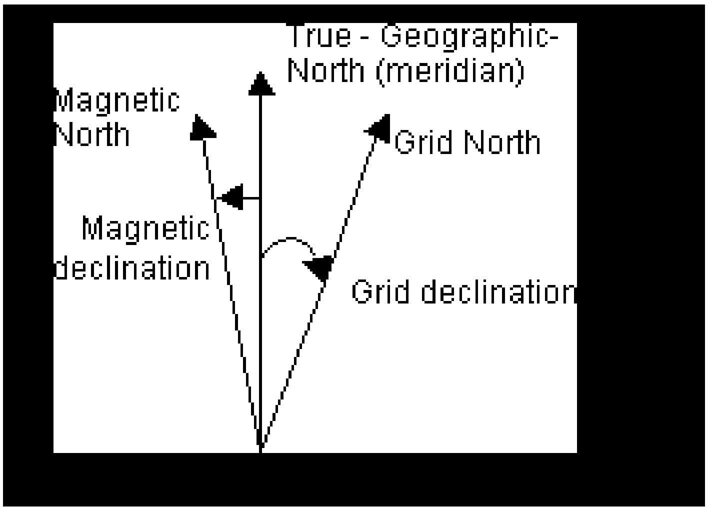
Description

Map Declination angles (grid declination and magnetic declination).

Grid declination gives the angle of between the geographic coordinate system and the projected coordinate system, at the center of the dataset coverage.

Magnetic declination allows to know the direction of the magnetic north compared to the geographic north.

Illustration



Example

```
<Map_Declination>
  <GRID_DECLINATION unit='DMS'>5300</GRID_DECLINATION>
  <MAGNETIC_DECLINATION unit='DMS'>-43600</MAGNETIC_DECLINATION>
  <MAGNETIC_DECLINATION_DATE>1984-01-01</MAGNETIC_DECLINATION_DATE>
  <MAGNETIC_DECL_ANNUAL_CHANGE unit='DMS'>840</MAGNETIC_DECL_ANNUAL_CHANGE>
</Map_Declination>
```

Datatype : (t_Map_Declination)

Unordered sub-elements :

- GRID_DECLINATION , minOccurs=0
- MAGNETIC_DECLINATION , minOccurs=0
- MAGNETIC_DECLINATION_DATE , minOccurs=0
- MAGNETIC_DECL_ANNUAL_CHANGE , minOccurs=0

Possible parents :

- **Dimap_Document**

<GRID_DECLINATION> Dimap_Generic, 1.0

Purpose

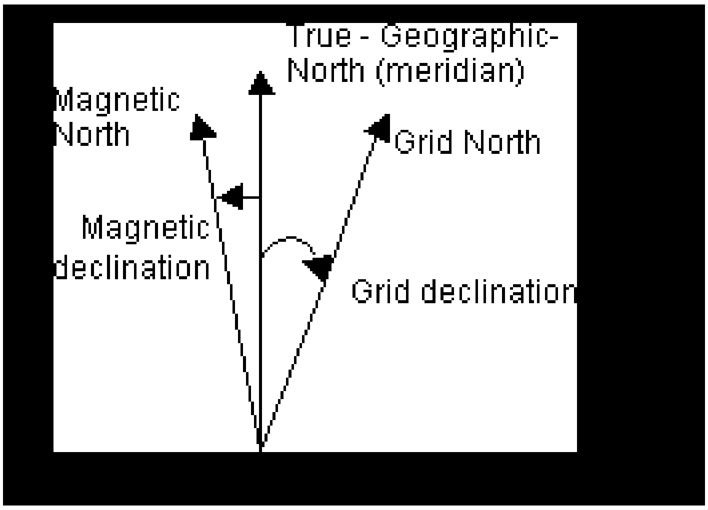
Grid declination (Projected versus Geographic) angle at map sheet center

Description

This record provides the grid declination angle. This is the angle between the meridian at the center of the sheet (True North or Geographic North) and the cartographic grid (Grid North). The angle is positive towards East and is measured from the geographic north to the grid north.

Please refer to the attached figure.

Illustration



Example

```
<Map_Declination>
  <GRID_DECLINATION unit='DMS'>5300</GRID_DECLINATION>
  <MAGNETIC_DECLINATION unit='DMS'>-43600</MAGNETIC_DECLINATION>
  <MAGNETIC_DECLINATION_DATE>1984-01-01</MAGNETIC_DECLINATION_DATE>
  <MAGNETIC_DECL_ANNUAL_CHANGE unit='DMS'>840</MAGNETIC_DECL_ANNUAL_CHANGE>
</Map_Declination>
```

Datatype : (t_GRID_DECLINATION)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_GRID_DECLINATION_Angular_Unit

Datatype : (k_GRID_DECLINATION_Angular_Unit)
Restriction of String
- ***DEG***
- ***DMS***
- ***GON***
- ***MNT***
- ***SEC***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

Dimap : Digital Image Map xml metadata documentation

- **Map_Declination**

<MAGNETIC_DECLINATION>

Dimap_Generic, 1.0

Purpose

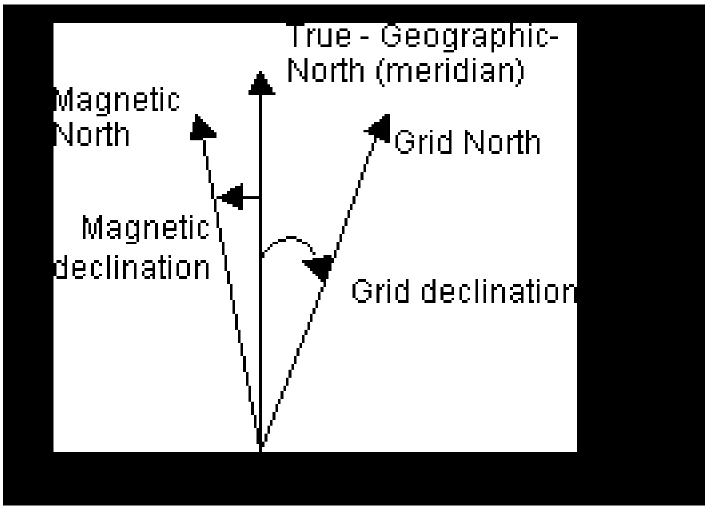
Magnetic declination angular value at map sheet center

Description

This record provides the magnetic declination angle. This is the angle between the geographic north (True North) and the magnetic north, valid at the center of the sheet. This angle is positive towards East and is measured from the true north to the magnetic north.

Please refer to the attached figure.

Illustration



Example

```
<Map_Declination>
  <GRID_DECLINATION unit='DMS'>5300</GRID_DECLINATION>
  <MAGNETIC_DECLINATION unit='DMS'>-43600</MAGNETIC_DECLINATION>
  <MAGNETIC_DECLINATION_DATE>1984-01-01</MAGNETIC_DECLINATION_DATE>
  <MAGNETIC_DECL_ANNUAL_CHANGE unit='DMS'>840</MAGNETIC_DECL_ANNUAL_CHANGE>
</Map_Declination>
```

Datatype : (t_MAGNETIC_DECLINATION)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_MAGNETIC_DECLINATION_Angular_Unit

Datatype : (k_MAGNETIC_DECLINATION_Angular_Unit)
Restriction of String
- ***DEG***
- ***DMS***
- ***GON***
- ***MNT***
- ***SEC***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

Dimap : Digital Image Map xml metadata documentation

- **Map_Declination**

<MAGNETIC_DECLINATION_DATE>

Dimap_Generic, 1.0

Purpose

Date of validity of magnetic declination value (MAGNETIC_DECLINATION)

Description

This record provides thedate of validity of magnetic declination. This is used to estimate the real magnetic declination at the time of use of the dataset, since magnetic declination is varying with position and time.

Please refer to the attached figure.

Example

```
<Map_Declination>
  <GRID_DECLINATION unit='DMS'>5300</GRID_DECLINATION>
  <MAGNETIC_DECLINATION unit='DMS'>-43600</MAGNETIC_DECLINATION>
  <MAGNETIC_DECLINATION_DATE>1984-01-01</MAGNETIC_DECLINATION_DATE>
  <MAGNETIC_DECL_ANNUAL_CHANGE unit='DMS'>840</MAGNETIC_DECL_ANNUAL_CHANGE>
</Map_Declination>
```

Datatype : (t_MAGNETIC_DECLINATION_DATE)

Restriction of Date

Datatype : (Date)
Restriction of xsd:date

Possible parents :

- **Map_Declination**

<MAGNETIC_DECL_ANNUAL_CHANGE> Dimap_Generic, 1.0

Purpose

Annual change angle of magnetic declination angle

Description

This record provides the annual change of magnetic declination. It is expressed as an algebric increment. This is used to estimate the real magnetic declination at the time of use of the dataset, since magnetic declination is varying with position and time.

Please refer to the attached figure.

Example

```
<Map_Declination>
  <GRID_DECLINATION unit='DMS'>5300</GRID_DECLINATION>
  <MAGNETIC_DECLINATION unit='DMS'>-43600</MAGNETIC_DECLINATION>
  <MAGNETIC_DECLINATION_DATE>1984-01-01</MAGNETIC_DECLINATION_DATE>
  <MAGNETIC_DECL_ANNUAL_CHANGE unit='DMS'>840</MAGNETIC_DECL_ANNUAL_CHANGE>
</Map_Declination>
```

Datatype : (t_MAGNETIC_DECL_ANNUAL_CHANGE)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_MAGNETIC_DECL_ANNUAL_CHANGE_Angular_Unit

Datatype : (k_MAGNETIC_DECL_ANNUAL_CHANGE_Angular_Unit)
Restriction of String
- ***DEG***
- ***DMS***
- ***GON***
- ***MNT***
- ***SEC***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Map_Declination**

<Raster_Dimensions>

Dimap_Generic, 1.0

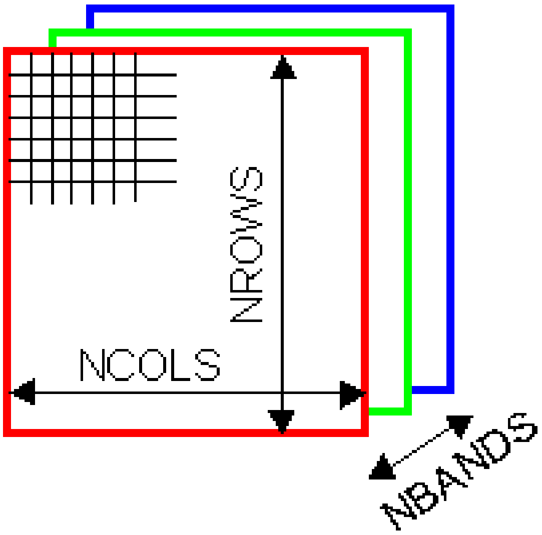
Purpose

Raster dimensions in the pixel coordinate reference system

Description

Raster dimensions in the pixel coordinate reference system.

Illustration



Example

```
<Raster_Dimensions>
  <NCOLS>1255</NCOLS>
  <NROWS>1387</NROWS>
  <NBANDS>3</NBANDS>
</Raster_Dimensions>
```

Datatype : (t_Raster_Dimensions)

Unordered sub-elements :

- NCOLS
- NROWS
- NBANDS

Possible parents :

- **Dimap_Document**

<NCOLS>

Dimap_Generic, 1.0

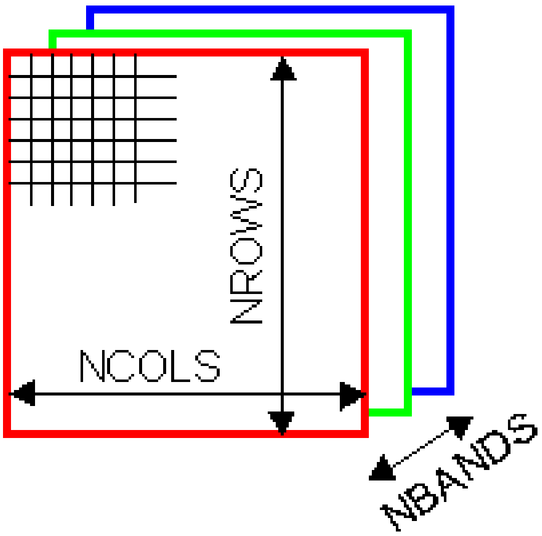
Purpose

Number of columns of this raster image

Description

This record provides the number of pixels (samples, columns) in each row of the image raster file. It is often also refered to as the width of the image.

Illustration



Example

```
<Raster_Dimensions>
  <NCOLS>1255</NCOLS>
  <NROWS>1387</NROWS>
  <NBANDS>3</NBANDS>
</Raster_Dimensions>
```

Datatype : (t_NCOLS)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Raster_Dimensions**

<NROWS>

Dimap_Generic, 1.0

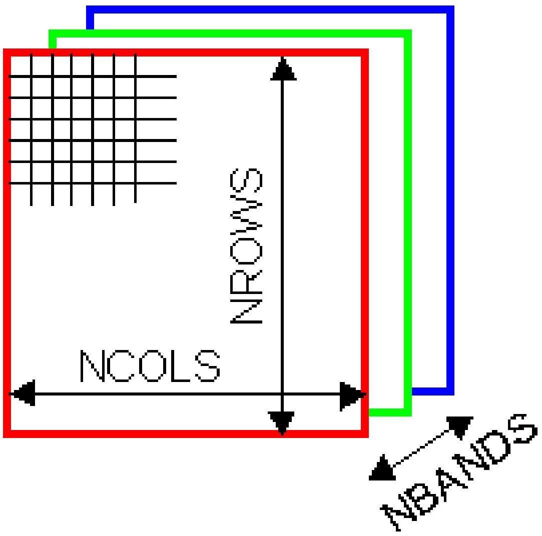
Purpose

Number of rows of this raster image

Description

The record provides the number of rows (lines) in image raster file. It is also often refered to as the height of the image.

Illustration



Example

```
<Raster_Dimensions>
  <NCOLS>1255</NCOLS>
  <NROWS>1387</NROWS>
  <NBANDS>3</NBANDS>
</Raster_Dimensions>
```

Datatype : (t_NROWS)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Raster_Dimensions**

<NBANDS>

Dimap_Generic, 1.0

Purpose

Number of spectral bands of this raster image

Description

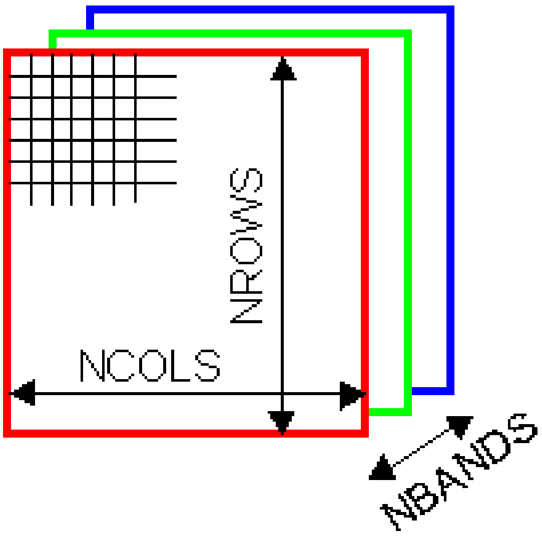
This record defines the number of spectral bands present in the raster image file.

Typical values are :

- - 1 for greyscale images (e.g. SPOT Pan or M)
- - 3 for RGB colour images (e.g. SPOT XS images, aerial photography,...)
- - 4 for SPOT Xi acquisitions or Vegetation images
- - 7 for Landsat TM images

Please note that this actual number of spectral bands can be different from the one used for original source acqusitions (e.g. 3 bands out of 4, pseudo-natural colour compositions,. . .)

Illustration



Example

```
<Raster_Dimensions>
  <NCOLS>1255</NCOLS>
  <NROWS>1387</NROWS>
  <NBANDS>3</NBANDS>
</Raster_Dimensions>
```

Datatype : (t_NBANDS)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Raster_Dimensions**

<Raster_Encoding>

Dimap_Generic, 1.0

Purpose

Raster file bytes & bits encoding, mainly used for flat BIL raster files

Description

Raster file bytes & bits encoding, mainly used for flat RAW raster files. Other formats are usually self descriptive.

Example

```
<Raster_Encoding>
  <NBITS>16</NBITS>
  <BYTEORDER>M</BYTEORDER>
  <DATA_TYPE>SHORT</DATA_TYPE>
  <SKIP_BYTES>512</SKIP_BYTES>
  <BANDS_LAYOUT>BIL</BANDS_LAYOUT>
</Raster_Encoding>
```

Datatype : (t_Raster_Encoding)

Unordered sub-elements :

- DATA_TYPE , minOccurs=0 , CM if NBITS <> 8
- NBITS , minOccurs=0
- BYTEORDER , minOccurs=0 , CM if NBITS > 8
- BANDS_LAYOUT , minOccurs=0 , CM if DATA_FILE_FORMAT = RAW
- SKIPBYTES , minOccurs=0

Possible parents :

- **Dimap_Document**

<DATA_TYPE>

Dimap_Generic, 1.0

Purpose

Data type for raster image

Description

This field describes how to decode the binary values used in the raster data. For example, a 16 bits pixel value can be decoded either as a signed or unsigned short integer value. Check the range of values for the list of authorised raster pixel values.

Note : for developers check the Tiff 6.0 documentation for additional information about data types

Example

```
<Raster_Encoding>
  <NBITS>16</NBITS>
  <BYTEORDER>M</BYTEORDER>
  <DATA_TYPE>SHORT</DATA_TYPE>
  <SKIP_BYTES>512</SKIP_BYTES>
  <BANDS_LAYOUT>BIL</BANDS_LAYOUT>
</Raster_Encoding>
```

Datatype : (t_DATA_TYPE)

Restriction of Data_Types

Datatype : (Data_Types)
Restriction of xsd:string
- ***BYTE***
- ***SHORT***
- ***LONG***
- ***SBYTE***
- ***SSHORT***
- ***SLONG***
- ***FLOAT***
- ***DOUBLE***

Special constraint : id=C_34_1.1, xpath=//Raster_Encoding/DATA_TYPE

CM if NBITS <> 8

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- Raster_Encoding

<NBITS>

Dimap_Generic, 1.0

Purpose

Number of bits per pixel of this raster image

Description

This record provides the number of bits used for each pixel of each band of the raster image.

By default NBITS=8 (a byte). This keyword is used for images which have a DATA_TYPE different than BYTE. This is the case for 16-bit DTM or radar images. It is especially useful with RAW data file format.

Example

```
<Raster_Encoding>
  <NBITS>16</NBITS>
  <BYTEORDER>M</BYTEORDER>
  <DATA_TYPE>SHORT</DATA_TYPE>
  <SKIP_BYTES>512</SKIP_BYTES>
  <BANDS_LAYOUT>BIL</BANDS_LAYOUT>
</Raster_Encoding>
```

Datatype : (t_NBITS)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Raster_Encoding**

<BYTEORDER>

Dimap_Generic, 1.0

Purpose

Byte order for multi-byte raster data types

Description

This keyword provides the type of image pixel storage type (byte ordering), either INTEL (or I) for Intel arrangement, or MOTOROLA (or M) for Motorola arrangement.

Note :

- with INTEL order, LSB (Least Significant Byte) comes first and
- with MOTOROLA order, MSB (Most Significant Byte/Big Endian) comes first.

INTEL order is also known as Little Endian whreas Motorola order is also know as Big Endian

This keyword is useful for binary file formats that are not self described such as RAW.

See also DATA_FILE_FORMAT.

Example

```
<Raster_Encoding>
  <NBITS>16</NBITS>
  <BYTEORDER>M</BYTEORDER>
  <DATA_TYPE>SHORT</DATA_TYPE>
  <SKIP_BYTES>512</SKIP_BYTES>
  <BANDS_LAYOUT>BIL</BANDS_LAYOUT>
</Raster_Encoding>
```

Datatype : (t_BYTEORDER)

Restriction of Byte_Order

Datatype : (Byte_Order)

Restriction of xsd:string

- ***I***
- ***M***
- ***INTEL***
- ***MOTOROLA***

Special constraint : id=C_34_3.1, xpath=//Raster_Encoding/BYTEORDER

CM if NBITS > 8

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Raster_Encoding**

<BANDS_LAYOUT>

Dimap_Generic, 1.0

Purpose

Bands layout for multiple band rasters

Description

This keywords describes the internal storage scheme used for the raster data. This is useful when the raster file format (RASTE_FILE_FORMAT) is set to RAW. This keyword is to be used only if DATA_FILE_ORGANISATION is set to BAND_COMPOSITE (otherwise the spectral bands are scattered into different files and therefore BANDS_LAYOUT does not make any sense).

In the case where DATA_FILE_ORGANISATION is set to BAND_COMPOSITE and the number of spectral bands is higher than 1, it is necessary to describe the scheme used to mix the bands of the raster. Currently there are three possibilities :

- BIL : Bands Interleaved per Lines
- BIP : Bands Interleaved by Pixels
- BSQ : Band Sequential

When using standard file formats such as TIFF or JPEG this information is stored into the raster file, there is no need use this keyword.

Example

```
<Raster_Encoding>
  <NBITS>16</NBITS>
  <BYTEORDER>M</BYTEORDER>
  <DATA_TYPE>SHORT</DATA_TYPE>
  <SKIP_BYTES>512</SKIP_BYTES>
  <BANDS_LAYOUT>BIL</BANDS_LAYOUT>
</Raster_Encoding>
```

Datatype : (t_BANDS_LAYOUT)

Restriction of Bands_Layout

Datatype : (Bands_Layout)

Restriction of xsd:string

- ***BIL***
- ***BSQ***
- ***BIP***

Special constraint : id=C_34_4.1, xpath=//Raster_Encoding/BAND_LAYOUT

CM if DATA_FILE_FORMAT = RAW

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Raster_Encoding**

<SKIPBYTES>

Dimap_Generic, 1.0

Purpose

Number of bytes to skip at the beginning of the raster file (for RAW raster files)

Description

This keyword provides the number of bytes to be skipped at the beginning of the raster file to get to the first row of pixels. This is meaningful only for binary file formats such as RAW .

Example

```
<Raster_Encoding>
  <NBITS>16</NBITS>
  <BYTEORDER>M</BYTEORDER>
  <DATA_TYPE>SHORT</DATA_TYPE>
  <SKIP_BYTES>512</SKIP_BYTES>
  <BANDS_LAYOUT>BIL</BANDS_LAYOUT>
</Raster_Encoding>
```

Datatype : (t_SKIPBYTES)

Restriction of PositiveOrNullInt

Datatype : (PositiveOrNullInt)
Restriction of xsd:integer
Min value (inclusive) : 0

Possible parents :

- **Raster_Encoding**

<Data_Processing>

Dimap_Generic, 1.0

Purpose

Specific data processing information

Description

The data processing information delivers some information about the geometric and/or radiometric processing which was performed on the dataset.

Example

```
<Data_Processing>
  <GEOMETRIC_PROCESSING>Precision(2B)</GEOMETRIC_PROCESSING>
  <RADIOMETRIC_PROCESSING>SPOTView PLUS standard radiometric
enhancements</RADIOMETRIC_PROCESSING>
  <THEMATIC_PROCESSING>none</THEMATIC_PROCESSING>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  ...
</Data_Processing>
```

Datatype : (t_Data_Processing)

Ordered sub-elements :

- GEOMETRIC_PROCESSING
- RADIOMETRIC_PROCESSING , minOccurs=0
- SPECTRAL_PROCESSING , minOccurs=0
- THEMATIC_PROCESSING , minOccurs=0
- Processing_Parameter , minOccurs=0 , maxOccurs=unbounded

Possible parents :

- **Dimap_Document**

<GEOMETRIC_PROCESSING> Dimap_Generic, 1.0

Purpose

Geometric processing information

Description

This free text record provides an informal way of describing the geometric process applied to the data. This can be used for quality control.

Follows some examples :

- "2A" for flat terrain geocoded SPOT imagery with no GCPs
- "2B" for flat terrain geocoded SPOT imagery with GCPs
- "ORTHO" for DTM terrain corrected Imagery with GCPs

Example

```
<Data_Processing>
  <GEOMETRIC_PROCESSING>Precision(2B)</GEOMETRIC_PROCESSING>
  <RADIOMETRIC_PROCESSING>SPOTView PLUS standard radiometric
enhancements</RADIOMETRIC_PROCESSING>
  <THEMATIC_PROCESSING>none</THEMATIC_PROCESSING>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  ...
</Data_Processing>
```

Datatype : (t_GEOMETRIC_PROCESSING)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Data_Processing**

<RADIOMETRIC_PROCESSING>

Dimap_Generic, 1.0

Purpose

Radiometric processing information

Description

General information about the radiometric processing performed on the raster dataset.

Example

```
<Data_Processing>
  <GEOMETRIC_PROCESSING>Precision(2B)</GEOMETRIC_PROCESSING>
  <RADIOMETRIC_PROCESSING>SPOTView PLUS standard radiometric
enhancements</RADIOMETRIC_PROCESSING>
  <THEMATIC_PROCESSING>none</THEMATIC_PROCESSING>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  ...
</Data_Processing>
```

Datatype : (t_RADIOMETRIC_PROCESSING)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Data_Processing**

<SPECTRAL_PROCESSING>

Dimap_Generic, 1.1

Purpose

Spectral processing information

Description

General information about the spectral processing performed on the raster dataset (e.g. Pan sharpenning...).

Example

```
<Data_Processing>
  <GEOMETRIC_PROCESSING>Precision(2B)</GEOMETRIC_PROCESSING>
  <RADIOMETRIC_PROCESSING>SPOTView PLUS standard radiometric
enhancements</RADIOMETRIC_PROCESSING>
  <THEMATIC_PROCESSING>none</THEMATIC_PROCESSING>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  ...
</Data_Processing>
```

Datatype : (t_SPECTRAL_PROCESSING)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Data_Processing**

<THEMATIC_PROCESSING>

Dimap_Generic, 1.0

Purpose

Thematic processing information

Description

This free text record provides an informal way of describing the thematic process applied to the data (such as classification). This can be used for quality control.

Follows some examples :

- - "Maximum Likelyhood supervised classification"
- - "16 classes automatic classification with manual grouping"
- - "Thresholding of vegetation index"

Example

```
<Data_Processing>
  <GEOMETRIC_PROCESSING>Precision(2B)</GEOMETRIC_PROCESSING>
  <RADIOMETRIC_PROCESSING>SPOTView PLUS standard radiometric
enhancements</RADIOMETRIC_PROCESSING>
  <THEMATIC_PROCESSING>none</THEMATIC_PROCESSING>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  ...
</Data_Processing>
```

Datatype : (t_THEMATIC_PROCESSING)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Data_Processing**

<Processing_Parameter>

Dimap_Generic, 1.0

Purpose

Processing parameter description and value

Description

This Group delivers the description and value of a given processing parameter.

A processing parameter is used to describe part of the process applied to a dataset. Usually there can be several processing parameters. The list of processing parameters depends on the data producer, the type of product and the type of processing applied to it.

Example

```
<Data_Processing>
  <GEOMETRIC_PROCESSING>Precision(2B)</GEOMETRIC_PROCESSING>
  <RADIOMETRIC_PROCESSING>SPOTView PLUS standard radiometric
enhancements</RADIOMETRIC_PROCESSING>
  <THEMATIC_PROCESSING>none</THEMATIC_PROCESSING>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  ...
</Data_Processing>
```

Datatype : (t_Processing_Parameter)

Unordered sub-elements :

- PROC_PARAMETER_DESC
- PROC_PARAMETER_VALUE

Possible parents :

- **Data_Processing**

<PROC_PARAMETER_DESC>

Dimap_Generic, 1.0

Purpose

Description of the current processing parameter

Description

The Processing Parameter Description is intended to explain the meaning of the value of the current processing parameter (PROC_PARAMETER_VALUE). The Processing_Parameter Group to which this keyword is attached is repeatable and may be stated as many times as necessary in order to deliver the meaning and value of all the processing parameters used in the making of the product.

Example

```
<Data_Processing>
  <GEOMETRIC_PROCESSING>Precision(2B)</GEOMETRIC_PROCESSING>
  <RADIOMETRIC_PROCESSING>SPOTView PLUS standard radiometric
enhancements</RADIOMETRIC_PROCESSING>
  <THEMATIC_PROCESSING>none</THEMATIC_PROCESSING>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  ...
</Data_Processing>
```

Datatype : (t_PROC_PARAMETER_DESC)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Processing_Parameter**

<PROC_PARAMETER_VALUE>

Dimap_Generic, 1.0

Purpose

Value of the current processing parameter

Description

The Processing Parameter Value is intended to expose the value of the current processing parameter which meaning is deleiverd by PROC_PARAMETER_DESC. The Processing_Parameter Group to which this keyword is attached is repeatable and may be stated as many times as necessary in order to deliver the meaning and value of all the processing parameters used in the making of the product.

Example

```
<Data_Processing>
  <GEOMETRIC_PROCESSING>Precision(2B)</GEOMETRIC_PROCESSING>
  <RADIOMETRIC_PROCESSING>SPOTView PLUS standard radiometric
enhancements</RADIOMETRIC_PROCESSING>
  <THEMATIC_PROCESSING>none</THEMATIC_PROCESSING>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  <Processing_Parameter>
    ...
  </Processing_Parameter>
  ...
</Data_Processing>
```

Datatype : (t_PROC_PARAMETER_VALUE)

Complex content :
Extension of Text

Possible parents :

- **Processing_Parameter**

<Data_Access>

Dimap_Generic, 1.0

Purpose

Access path(s) to the real data file(s)

Description

Data_Access delivers the paths to the real data files. There may be one or several attached files according to the DATA_FILE_ORGANISATION, SUPER_TILE_SIZE and PYRAMID_DEPTH used. The simplest case (and the most common) is with a single Data_File attached (for example a single GeoTiff file).

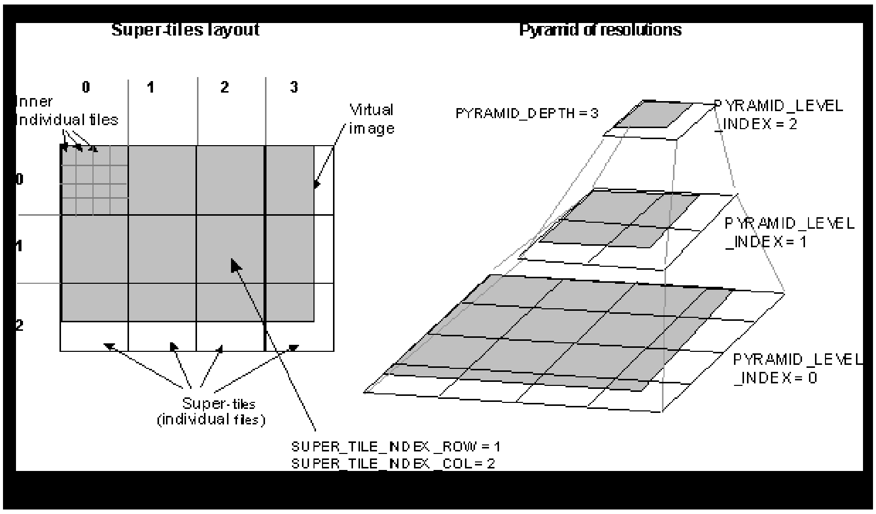
However, there may be some more complicated Data_Access organisation. For example, if DATA_FILE_ORGANISATION is 'BAND_SEPARATE' then there will be as many Data_File as number of spectral bands of the image (one per band).

As well, when dealing with very large images, it is possible to split an image into separate super-tiles (we use the term of 'super-tiles' in order not to get confused with naturally tiled file formats like Tiff 6.0 or FlashPix). In this case the 'virtual image' is split into square super-tiles, each being a single small file. Please note that all the different Data_Files are of the same file format. Some of the individual super-tiles could not be present, allowing none rectangular virtual images.

On the top of super-tiling, one can define multiple resolution datasets. This construction allows to represent the same dataset at different resolutions. This is applicable to both raster or vector datasets. All the pyramid levels do not need to be present. The scale ratio between two succecive pyramid layer is 1/2.

You can refer to the Dimap Reference Documentation (Dimap in use chapter) for detailed explanations on super-tiling and image pyramids.

Illustration



Example

```
<Data_Access>
   <DATA_FILE_FORMAT>GEOTIFF</DATA_FILE_FORMAT>
   <Data_File>
      <DATA_FILE_PATH href="Alfaro_Ortho.TIF/>
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>OTHER</DATA_FILE_FORMAT>
   <DATA_FILE_FORMAT_DESC>Special Telecom DEM format</DATA_FILE_FORMAT_DESC>
   <Data_File>
      ...
   </Data_File>
</Data_Access>

or
```

```
<Data_Access>
   <DATA_FILE_FORMAT>RAW</DATA_FILE_FORMAT>
   <DATA_FILE_ORGANISATION>BAND_SEPARATE</DATA_FILE_ORGANISATION>
   <Data_File>
     <BAND_INDEX>1</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>2</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>3</BAND_INDEX>
      ...
   </Data_File>
</Data_Access>

or

<Data_Access>
   <SUPER_TILE_SIZE>512</SUPER_TILE_SIZE>
   <PYRAMID_DEPTH>4</PYRAMID_DEPTH>
   <DATA_FILE_FORMAT>TIF</DATA_FILE_FORMAT>
   <Data_File>
      ...
   </Data_File>
   <Data_File>
      ...
   </Data_File>
   ...
</Data_Access>
```

Datatype : (t_Data_Access)

Ordered sub-elements :

- DATA_FILE_FORMAT
- DATA_FILE_FORMAT_DESC , minOccurs=0 , CM if DATA_FILE_FORMAT = 'OTHER'
- DATA_FILE_ORGANISATION , minOccurs=0
- SUPER_TILE_SIZE , minOccurs=0
- PYRAMID_DEPTH , minOccurs=0
- Data_File , maxOccurs=unbounded

Possible parents :

- **Dimap_Document**

<DATA_FILE_FORMAT>

Dimap_Generic, 1.0

Purpose

Data file format identification

Description

This keyword is used to properly identify the actual data storage format. A domain list is provided. It is axpected that if the client software recognizes that data storage format then the data file should then be loaded automatically whithout any further user intervention.

If this keyword is set to 'OTHER' then the keyword DATA_FILE_FORMAT_DESC should be used to provide additional (textual) information, for manually assisted operation.

This keyword can be cited several times (through repeating tha Data_File group) if super-tiling or pyramid techniques are used.

Example

```
<Data_Access>
   <DATA_FILE_FORMAT>GEOTIFF</DATA_FILE_FORMAT>
   <Data_File>
      <DATA_FILE_PATH href="Alfaro_Ortho.TIF/>
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>OTHER</DATA_FILE_FORMAT>
   <DATA_FILE_FORMAT_DESC>Special Telecom DEM format</DATA_FILE_FORMAT_DESC>
   <Data_File>
      ...
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>RAW</DATA_FILE_FORMAT>
   <DATA_FILE_ORGANISATION>BAND_SEPARATE</DATA_FILE_ORGANISATION>
   <Data_File>
     <BAND_INDEX>1</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>2</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>3</BAND_INDEX>
      ...
   </Data_File>
</Data_Access>

or

<Data_Access>
   <SUPER_TILE_SIZE>512</SUPER_TILE_SIZE>
   <PYRAMID_DEPTH>4</PYRAMID_DEPTH>
   <DATA_FILE_FORMAT>TIF</DATA_FILE_FORMAT>
   <Data_File>
      ...
   </Data_File>
   <Data_File>
      ...
   </Data_File>
   ...
</Data_Access>
```

Datatype : (t_DATA_FILE_FORMAT)

Simple content :
Restriction of String_Version
- *DTED*
- *RAW*
- *TIFF*
- *GEOTIFF*
- *JFIF*
- *GIF*
- *BMP*
- *PPM*
- *PGM*
- *PNG*
- *ECW*
- *SID*
- *JP2*
- *DXF*
- *DGN*
- *DLG*
- *BNA*
- *ODYSSEY*
- *MIF*
- *SHP*
- *GENERATE*
- *MOSS*
- *IGES*
- *VPF*
- *GML*
- *SVG*
- *OTHER*

Extension of xsd:string
Attribute : **version** of type xsd:string

Possible parents :

- **Data_Access**

<DATA_FILE_FORMAT_DESC> Dimap_Generic, 1.0

Purpose

Data file format description

Description

This keyword provides a textual description of the data storage format being used. The use of this keyword is not recommended since it prevents automation on data loading.

Nevertheless, when DATA_FILE_FORMAT is set to 'OTHER' this keyword should be used to provide additional information in order to assist the user.

Example

```
<Data_Access>
   <DATA_FILE_FORMAT>GEOTIFF</DATA_FILE_FORMAT>
   <Data_File>
      <DATA_FILE_PATH href="Alfaro_Ortho.TIF/>
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>OTHER</DATA_FILE_FORMAT>
   <DATA_FILE_FORMAT_DESC>Special Telecom DEM format</DATA_FILE_FORMAT_DESC>
   <Data_File>
      ...
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>RAW</DATA_FILE_FORMAT>
   <DATA_FILE_ORGANISATION>BAND_SEPARATE</DATA_FILE_ORGANISATION>
   <Data_File>
     <BAND_INDEX>1</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>2</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>3</BAND_INDEX>
      ...
   </Data_File>
</Data_Access>

or

<Data_Access>
   <SUPER_TILE_SIZE>512</SUPER_TILE_SIZE>
   <PYRAMID_DEPTH>4</PYRAMID_DEPTH>
   <DATA_FILE_FORMAT>TIF</DATA_FILE_FORMAT>
   <Data_File>
      ...
   </Data_File>
   <Data_File>
      ...
   </Data_File>
   ...
</Data_Access>
```

Datatype : (t_DATA_FILE_FORMAT_DESC)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_37_1.1, xpath=//Data_Access/DATA_FILE_FORMAT_DESC

CM if DATA_FILE_FORMAT = 'OTHER'

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Data_Access**

<DATA_FILE_ORGANISATION>

Dimap_Generic, 1.0

Purpose

Tells the file organisation used to store the data in case of multispectral imagery.

Description

This keyword is used to identify which file layout is used to store the actual data. Several schemes can be used :

- - BAND_SEPARATE : multispectral raster data is stored into separated files (one for each spectral band)
- - BAND_COMPOSITE (default value) : multispectral raster data is stored into one file.

If the organisation is set to BAND_SEPARATE then the BAND_INDEX keyword is used to associate a given Data_File to a proper band index. It is also expected that all files are strored in the same format and have the same pixel size.

This keyword is essentially to be used if the raster file format is RAW. Another use case would be to store 7 bands imagery in Tiff format, each individual band being a separate Tiff file. Tiff also supports composite schemes using RGB color model and the ExtraSamples tag but many software currently do not support this.

Example

```
<Data_Access>
   <DATA_FILE_FORMAT>GEOTIFF</DATA_FILE_FORMAT>
   <Data_File>
      <DATA_FILE_PATH href="Alfaro_Ortho.TIF/>
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>OTHER</DATA_FILE_FORMAT>
   <DATA_FILE_FORMAT_DESC>Special Telecom DEM format</DATA_FILE_FORMAT_DESC>
   <Data_File>
      ...
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>RAW</DATA_FILE_FORMAT>
   <DATA_FILE_ORGANISATION>BAND_SEPARATE</DATA_FILE_ORGANISATION>
   <Data_File>
     <BAND_INDEX>1</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>2</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>3</BAND_INDEX>
      ...
   </Data_File>
</Data_Access>

or

<Data_Access>
   <SUPER_TILE_SIZE>512</SUPER_TILE_SIZE>
   <PYRAMID_DEPTH>4</PYRAMID_DEPTH>
   <DATA_FILE_FORMAT>TIF</DATA_FILE_FORMAT>
   <Data_File>
      ...
   </Data_File>
   <Data_File>
```

```
        ...
    </Data_File>
    ...
</Data_Access>
```

Datatype : (t_DATA_FILE_ORGANISATION)

Restriction of DF_Organisation

Datatype : (DF_Organisation)
Restriction of xsd:string
- *BAND_COMPOSITE*
- *BAND_SEPARATE*

Possible parents :

- **Data_Access**

<SUPER_TILE_SIZE> Dimap_Generic, 1.0

Purpose

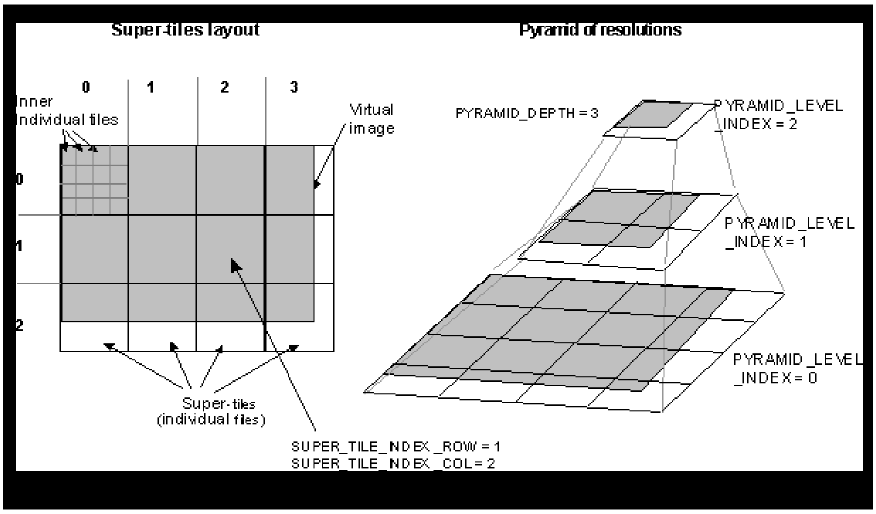
Size in pixels of a super-tile

Description

Provides the square size of a single super-tile (one file out of the series of data-files) in pixels. Meaningful when a Super-Tiled file structure is being used.

Dividing NCOLS, NROWS by SUPER_TILE_SIZE provides (after round up) the number of super-tiles in the column and row axis directions. If no super tile size is specified then the raster dataset is not tiled. It is highly recommended to choose powers of two as super tile sizes.

Illustration



Example

```
<Data_Access>
   <DATA_FILE_FORMAT>GEOTIFF</DATA_FILE_FORMAT>
   <Data_File>
      <DATA_FILE_PATH href="Alfaro_Ortho.TIF/>
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>OTHER</DATA_FILE_FORMAT>
   <DATA_FILE_FORMAT_DESC>Special Telecom DEM format</DATA_FILE_FORMAT_DESC>
   <Data_File>
      ...
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>RAW</DATA_FILE_FORMAT>
   <DATA_FILE_ORGANISATION>BAND_SEPARATE</DATA_FILE_ORGANISATION>
   <Data_File>
     <BAND_INDEX>1</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>2</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>3</BAND_INDEX>
      ...
```

```
   </Data_File>
</Data_Access>

or

<Data_Access>
   <SUPER_TILE_SIZE>512</SUPER_TILE_SIZE>
   <PYRAMID_DEPTH>4</PYRAMID_DEPTH>
   <DATA_FILE_FORMAT>TIF</DATA_FILE_FORMAT>
   <Data_File>
      ...
   </Data_File>
   <Data_File>
      ...
   </Data_File>
   ...
</Data_Access>
```

Datatype : (t_SUPER_TILE_SIZE)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Data_Access**

<PYRAMID_DEPTH> Dimap_Generic, 1.0

Purpose

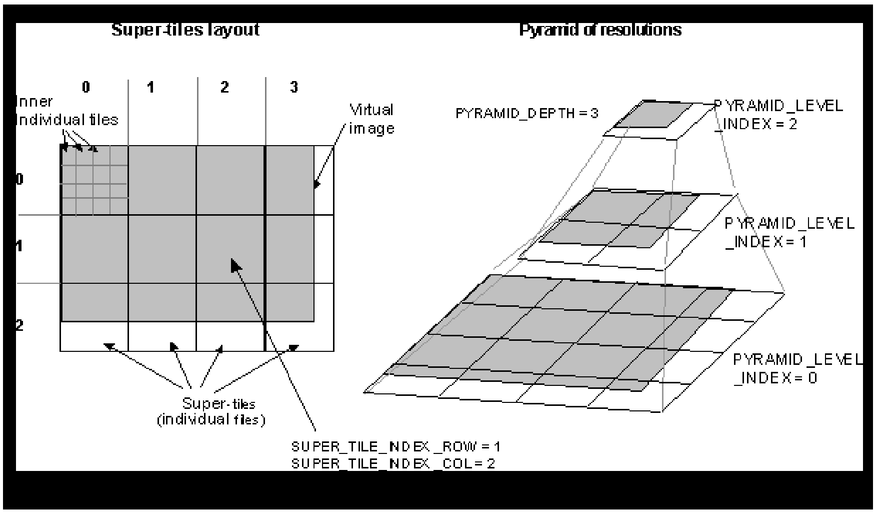
Number of slices of the image pyramid, when the data is stored as a multi-resolution file series.

Description

This keyword provides the number of slices of the pyramid when a pyramidal (multi-resolution) file structure is used . Its default value is 1 (which indeed means no image pyramid). Image pyramid is also often refered to as reduced resolution layers.

Please refer to the Dimap Reference Documentation for more information about pyramidal images.

Illustration



Example

```
<Data_Access>
   <DATA_FILE_FORMAT>GEOTIFF</DATA_FILE_FORMAT>
   <Data_File>
      <DATA_FILE_PATH href="Alfaro_Ortho.TIF/>
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>OTHER</DATA_FILE_FORMAT>
   <DATA_FILE_FORMAT_DESC>Special Telecom DEM format</DATA_FILE_FORMAT_DESC>
   <Data_File>
      ...
   </Data_File>
</Data_Access>

or

<Data_Access>
   <DATA_FILE_FORMAT>RAW</DATA_FILE_FORMAT>
   <DATA_FILE_ORGANISATION>BAND_SEPARATE</DATA_FILE_ORGANISATION>
   <Data_File>
     <BAND_INDEX>1</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>2</BAND_INDEX>
      ...
   </Data_File>
   <Data_File>
     <BAND_INDEX>3</BAND_INDEX>
      ...
   </Data_File>
```

```
</Data_Access>

or

<Data_Access>
   <SUPER_TILE_SIZE>512</SUPER_TILE_SIZE>
   <PYRAMID_DEPTH>4</PYRAMID_DEPTH>
   <DATA_FILE_FORMAT>TIF</DATA_FILE_FORMAT>
   <Data_File>
      ...
   </Data_File>
   <Data_File>
      ...
   </Data_File>
   ...
</Data_Access>
```

Datatype : (t_PYRAMID_DEPTH)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Data_Access**

<Data_File> Dimap_Generic, 1.0

Purpose

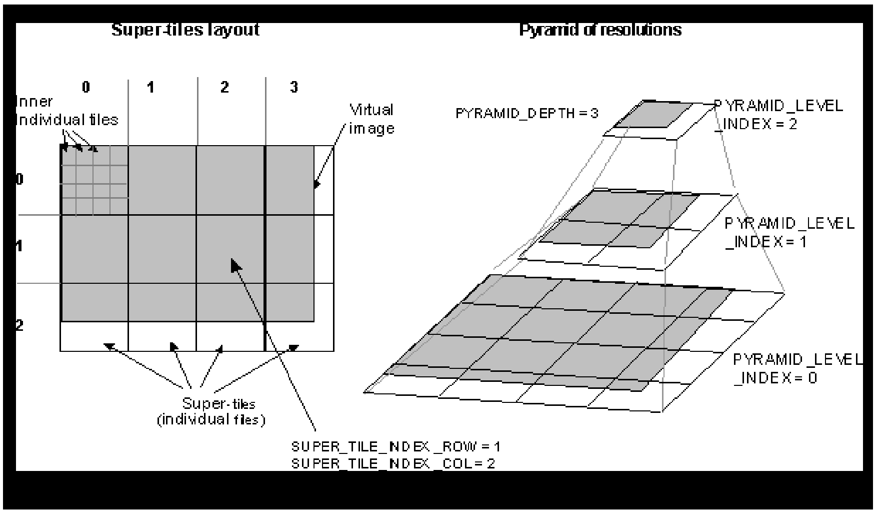
List of data files attached to this dataset

Description

Data_File delivers the path to a given data file (real raster or vector file, not metadata). As well the indices concerning the spectral band index, the super-tiling indices and the pyramidal level are delivered if applicable. These extra information allow to place a given elementary file within the global data file structure.

The simplest construction only associates a single Data_File to a Data_Access group.

Illustration



Example

```
<Data_File>
  <DATA_FILE_PATH href="Alfaro_Ortho.tif"/>
</Data_File>

or

<Data_File>
  <DATA_FILE_PATH href="Alfaro_b2.tif"/>
  <BAND_INDEX>2</BAND_INDEX>
</Data_File>

or

<Data_File>
  <DATA_FILE_PATH href="tile_2_3_2.tif"/>
  <BAND_INDEX>2</BAND_INDEX>
  <SUPER_TILE_INDEX_COL>2</SUPER_TILE_INDEX_COL>
  <SUPER_TILE_INDEX_ROW>3</SUPER_TILE_INDEX_ROW>
  <PYRAMID_LEVEL_INDEX>4</PYRAMID_LEVEL_INDEX>
</Data_File>
```

Datatype : (t_Data_File)

Unordered sub-elements :

- DATA_FILE_PATH
- BAND_INDEX , minOccurs=0 , CM if DATA_FILE_ORGANISATION = 'BAND_SEPARATE'
- SUPER_TILE_INDEX_COL , minOccurs=0 , CM if SUPER_TILE_SIZE present
- SUPER_TILE_INDEX_ROW , minOccurs=0 , CM if SUPER_TILE_SIZE present
- PYRAMID_LEVEL_INDEX , minOccurs=0 , CM if PYRAMID_DEPTH present

Possible parents :

- **Data_Access**

<DATA_FILE_PATH>

Dimap_Generic, 1.0

Purpose

Data file access path relative to the current document

Description

This keyword allows to give the access path to a data file.

The path is relative to the current document. The path notation follows the URI/URL standard which can be found at :

- http://www.w3.org/Addressing/Addressing.html
- http://www.w3.org/Addressing/URL/uri-spec.html
- http://www.w3.org/Addressing/URL/url-spec.html.

The exact meaning of the file being pointed to by this keyword results from the value of the associated keywords (SUPER_TILE_INDEX_ROW/COL, PYRAMID_LEVEL_INDEX, BAND_INDEX). The easiest scheme will use a single file, in that case the Data_File group will be cited only once and it will only contain a DATA_FILE_PATH keyword.

Example

```
<Data_File>
  <DATA_FILE_PATH href="Alfaro_Ortho.tif"/>
</Data_File>

or

<Data_File>
  <DATA_FILE_PATH href="Alfaro_b2.tif"/>
  <BAND_INDEX>2</BAND_INDEX>
</Data_File>

or

<Data_File>
  <DATA_FILE_PATH href="tile_2_3_2.tif"/>
  <BAND_INDEX>2</BAND_INDEX>
  <SUPER_TILE_INDEX_COL>2</SUPER_TILE_INDEX_COL>
  <SUPER_TILE_INDEX_ROW>3</SUPER_TILE_INDEX_ROW>
  <PYRAMID_LEVEL_INDEX>4</PYRAMID_LEVEL_INDEX>
</Data_File>
```

Datatype : (t_DATA_FILE_PATH)

Complex content :
Extension of URI
Attribute : **href** of type xsd:anyURI

Possible parents :

- **Data_File**

<BAND_INDEX>

Dimap_Generic, 1.0

Purpose

The Band Index number the current group refers to

Description

Used in different groups in order to deliver the band index number (for multispectral images) that the current group is describing.

Example

```
<BAND_INDEX>1</BAND_INDEX>
```

Datatype : (t_BAND_INDEX)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Special constraint : id=C_38_1.1, xpath=//Data_File/BAND_INDEX

CM if DATA_FILE_ORGANISATION = 'BAND_SEPARATE'

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Data_File**
- **Band_Statistics**
- **Spectral_Band_Info**
- **Band_Parameters**

<SUPER_TILE_INDEX_COL> Dimap_Generic, 1.0

Purpose

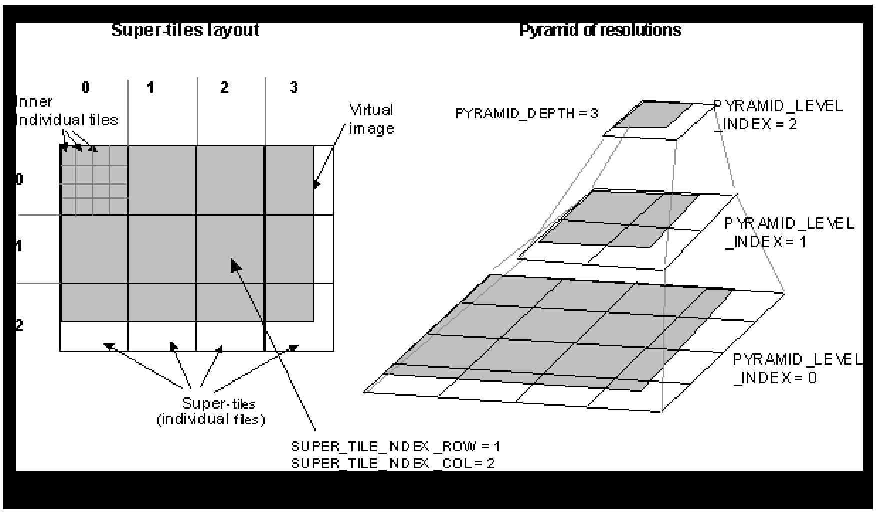
Super tile index as a column index in the super tile array

Description

This keyword provides the super-tile column index when Super-Tiled file structure is used (see SUPER_TILE_SIZE).

The origin of the super-tiling indices is located at the upper-left of the virtual image and starts at 0. The row index increases downward as for row or line numbers of a raster.

Illustration



Example

```
<Data_File>
  <DATA_FILE_PATH href="Alfaro_Ortho.tif"/>
</Data_File>

or

<Data_File>
  <DATA_FILE_PATH href="Alfaro_b2.tif"/>
  <BAND_INDEX>2</BAND_INDEX>
</Data_File>

or

<Data_File>
  <DATA_FILE_PATH href="tile_2_3_2.tif"/>
  <BAND_INDEX>2</BAND_INDEX>
  <SUPER_TILE_INDEX_COL>2</SUPER_TILE_INDEX_COL>
  <SUPER_TILE_INDEX_ROW>3</SUPER_TILE_INDEX_ROW>
  <PYRAMID_LEVEL_INDEX>4</PYRAMID_LEVEL_INDEX>
</Data_File>
```

Datatype : (t_SUPER_TILE_INDEX_COL)

Restriction of PositiveOrNullInt

Datatype : (PositiveOrNullInt)
Restriction of xsd:integer

Min value (inclusive) : 0

Special constraint : id=C_38_2.1, xpath=//Data_File/SUPER_TILE_INDEX_COL

CM if SUPER_TILE_SIZE present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Data_File**

<SUPER_TILE_INDEX_ROW> Dimap_Generic, 1.0

Purpose

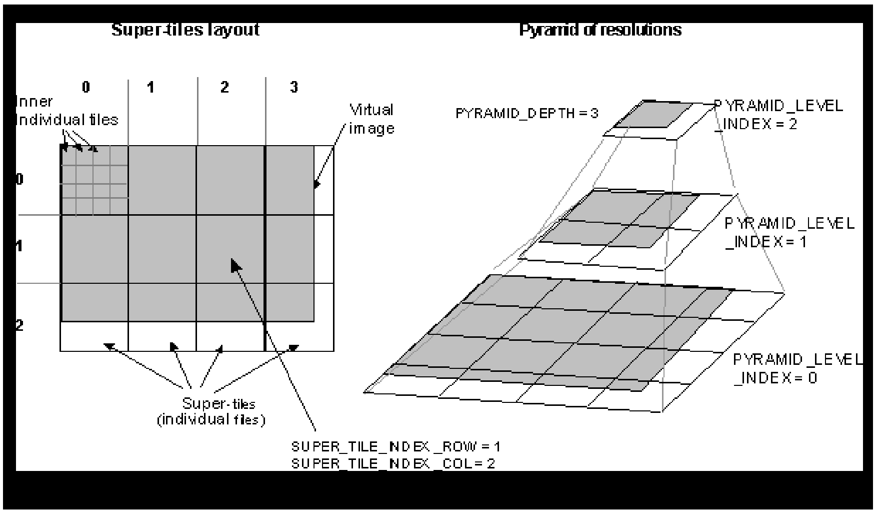
Super tile index as a row index in the super tile array

Description

This keyword provides the super-tile row index when Super-Tiled file structure is used (see SUPER_TILE_SIZE).

The origin of the super-tiling indices is located at the upper-left of the virtual image and starts at 0. The row index increases downward as for row or line numbers of a raster.

Illustration



Example

```
<Data_File>
  <DATA_FILE_PATH href="Alfaro_Ortho.tif"/>
</Data_File>

or

<Data_File>
  <DATA_FILE_PATH href="Alfaro_b2.tif"/>
  <BAND_INDEX>2</BAND_INDEX>
</Data_File>

or

<Data_File>
  <DATA_FILE_PATH href="tile_2_3_2.tif"/>
  <BAND_INDEX>2</BAND_INDEX>
  <SUPER_TILE_INDEX_COL>2</SUPER_TILE_INDEX_COL>
  <SUPER_TILE_INDEX_ROW>3</SUPER_TILE_INDEX_ROW>
  <PYRAMID_LEVEL_INDEX>4</PYRAMID_LEVEL_INDEX>
</Data_File>
```

Datatype : (t_SUPER_TILE_INDEX_ROW)

Restriction of PositiveOrNullInt

Datatype : (PositiveOrNullInt)
Restriction of xsd:integer

Min value (inclusive) : 0

Special constraint : id=C_38_3.1, xpath=//Data_File/SUPER_TILE_INDEX_ROW

CM if SUPER_TILE_SIZE present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Data_File**

<PYRAMID_LEVEL_INDEX> Dimap_Generic, 1.0

Purpose

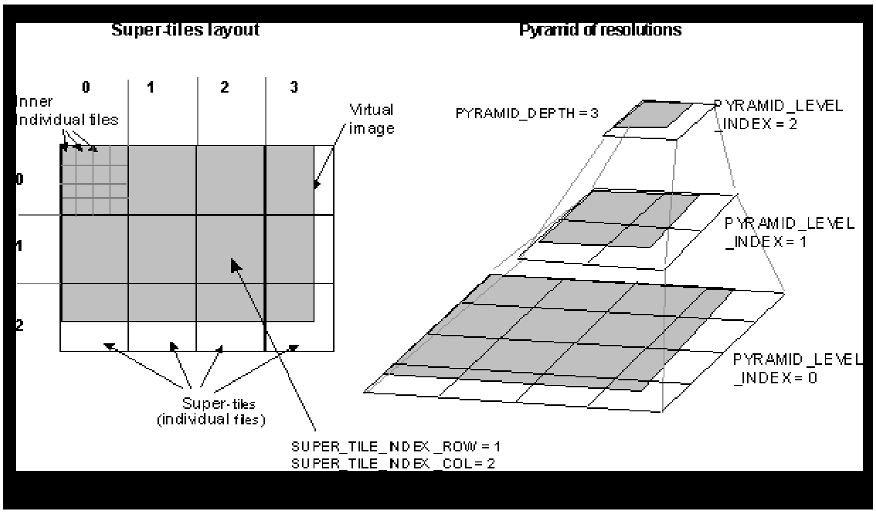
Gives the pyramid level index for the current data file

Description

This keyword provides the slice number (or pyramid level index) of the current file. This is meaningful when a pyramidal (multi-resolution) file structure is used (see PYRAMID_DEPTH). Each file pointed to by a Data_File Group is assigned a pyramid level which places it into the file hierarchy.

The pyramid index starts at 0 (highest resolution, basement of the pyramid) and finishes at PYRAMID_DEPTH - 1 (lowest resolution, top of the pyramid).

Illustration



Example

```
<Data_File>
  <DATA_FILE_PATH href="Alfaro_Ortho.tif"/>
</Data_File>

or

<Data_File>
  <DATA_FILE_PATH href="Alfaro_b2.tif"/>
  <BAND_INDEX>2</BAND_INDEX>
</Data_File>

or

<Data_File>
  <DATA_FILE_PATH href="tile_2_3_2.tif"/>
  <BAND_INDEX>2</BAND_INDEX>
  <SUPER_TILE_INDEX_COL>2</SUPER_TILE_INDEX_COL>
  <SUPER_TILE_INDEX_ROW>3</SUPER_TILE_INDEX_ROW>
  <PYRAMID_LEVEL_INDEX>4</PYRAMID_LEVEL_INDEX>
</Data_File>
```

Datatype : (t_PYRAMID_LEVEL_INDEX)

Restriction of PositiveOrNullInt

Datatype : (PositiveOrNullInt)

Restriction of xsd:integer
Min value (inclusive) : 0

Special constraint : id=C_38_4.1, xpath=//Data_File/PYRAMID_LEVEL_INDEX

CM if PYRAMID_DEPTH present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Data_File**

<Image_Display>

Dimap_Generic, 1.0

Purpose

Recommended display parameters

Description

This set of information allow to provide the user with some load-and-go functionalities. Software that read this simple set of information can find out which band order is appropriate and which basic contrast/ brightness can be applied. Also, unexperimented users can use this information if they are not sure about how to use the data.

Datatype : (t_Image_Display)

Ordered sub-elements :

- Band_Display_Order , minOccurs=0
- Special_Value , minOccurs=0 , maxOccurs=unbounded
- Band_Statistics , minOccurs=0 , maxOccurs=unbounded , if present nb occ = NBANDS

Possible parents :

- **Dimap_Document**

<Band_Display_Order>

Dimap_Generic, 1.0

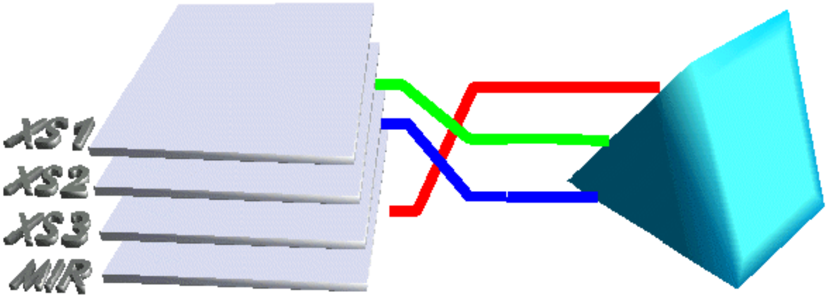
Purpose

Recommended band display order

Description

Recommended band display order for multi-spectral images. For instance, for a BIL raster file the XS3 (NIR) is on band 3 of the raster file, but for a GeoTIFF file the XS3 is on band 1 of the raster file.

Illustration



Example

```
<Band_Display_Order>
  <RED_CHANNEL>1</RED_CHANNEL>
  <GREEN_CHANNEL>2</GREEN_CHANNEL>
  <BLUE_CHANNEL>3</BLUE_CHANNEL>
</Band_Display_Order>

or

<Band_Display_Order>
  <RED_CHANNEL>3</RED_CHANNEL>
  <GREEN_CHANNEL>4</GREEN_CHANNEL>
  <BLUE_CHANNEL>2</BLUE_CHANNEL>
</Band_Display_Order>

or

<Band_Display_Order>
  <RED_CHANNEL>1</RED_CHANNEL>
  <GREEN_CHANNEL>1</GREEN_CHANNEL>
  <BLUE_CHANNEL>1</BLUE_CHANNEL>
</Band_Display_Order>
```

Datatype : (t_Band_Display_Order)

Unordered sub-elements :

- RED_CHANNEL
- GREEN_CHANNEL
- BLUE_CHANNEL

Possible parents :

- **Image_Display**

<RED_CHANNEL>

Dimap_Generic, 1.0

Purpose

Recommended band index to be displayed as red channel.

Description

This keyword belongs to the Load&Go category of information. It delivers a recommended band index to be displayed as red channel. This is useful for multispectral imagery to load a meaningful band color combination to the screen.

Example

```
<Band_Display_Order>
  <RED_CHANNEL>1</RED_CHANNEL>
  <GREEN_CHANNEL>2</GREEN_CHANNEL>
  <BLUE_CHANNEL>3</BLUE_CHANNEL>
</Band_Display_Order>

or

<Band_Display_Order>
  <RED_CHANNEL>3</RED_CHANNEL>
  <GREEN_CHANNEL>4</GREEN_CHANNEL>
  <BLUE_CHANNEL>2</BLUE_CHANNEL>
</Band_Display_Order>

or

<Band_Display_Order>
  <RED_CHANNEL>1</RED_CHANNEL>
  <GREEN_CHANNEL>1</GREEN_CHANNEL>
  <BLUE_CHANNEL>1</BLUE_CHANNEL>
</Band_Display_Order>
```

Datatype : (t_RED_CHANNEL)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Band_Display_Order**

<GREEN_CHANNEL> Dimap_Generic, 1.0

Purpose

Recommended band index to be displayed as green channel.

Description

This keyword belongs to the Load&Go category of information. It delivers a recommended band index to be displayed as green channel. This is useful for multispectral imagery to load a meaningful band color combination to the screen.

Example

```
<Band_Display_Order>
  <RED_CHANNEL>1</RED_CHANNEL>
  <GREEN_CHANNEL>2</GREEN_CHANNEL>
  <BLUE_CHANNEL>3</BLUE_CHANNEL>
</Band_Display_Order>

or

<Band_Display_Order>
  <RED_CHANNEL>3</RED_CHANNEL>
  <GREEN_CHANNEL>4</GREEN_CHANNEL>
  <BLUE_CHANNEL>2</BLUE_CHANNEL>
</Band_Display_Order>

or

<Band_Display_Order>
  <RED_CHANNEL>1</RED_CHANNEL>
  <GREEN_CHANNEL>1</GREEN_CHANNEL>
  <BLUE_CHANNEL>1</BLUE_CHANNEL>
</Band_Display_Order>
```

Datatype : (t_GREEN_CHANNEL)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Band_Display_Order**

<BLUE_CHANNEL>

Dimap_Generic, 1.0

Purpose

Recommended band index to be displayed as blue channel.

Description

This keyword belongs to the Load&Go category of information. It delivers a recommended band index to be displayed as blue channel. This is useful for multispectral imagery to load a meaningful band color combination to the screen.

Example

```
<Band_Display_Order>
  <RED_CHANNEL>1</RED_CHANNEL>
  <GREEN_CHANNEL>2</GREEN_CHANNEL>
  <BLUE_CHANNEL>3</BLUE_CHANNEL>
</Band_Display_Order>

or

<Band_Display_Order>
  <RED_CHANNEL>3</RED_CHANNEL>
  <GREEN_CHANNEL>4</GREEN_CHANNEL>
  <BLUE_CHANNEL>2</BLUE_CHANNEL>
</Band_Display_Order>

or

<Band_Display_Order>
  <RED_CHANNEL>1</RED_CHANNEL>
  <GREEN_CHANNEL>1</GREEN_CHANNEL>
  <BLUE_CHANNEL>1</BLUE_CHANNEL>
</Band_Display_Order>
```

Datatype : (t_BLUE_CHANNEL)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Band_Display_Order**

<Special_Value>

Dimap_Generic, 1.0

Purpose

Special value description

Description

Special values are used to carry out some information about certain pixel grey level values that are assigned a specific meaning (no-data, classification, ...)

Example

```
<Special_Value>
   <SPECIAL_VALUE_INDEX>0</SPECIAL_VALUE_INDEX>
   <SPECIAL_VALUE_TEXT>No data, black edges outside of valid image
data</SPECIAL_VALUE_TEXT>
   <Special_Value_Color>
      ...
   </Special_Value_Color>
</Special_Value>

or

<Special_Value>
   <SPECIAL_VALUE_INDEX>10</SPECIAL_VALUE_INDEX>
   <SPECIAL_VALUE_TEXT>Forested areas</SPECIAL_VALUE_TEXT>
</Special_Value>
```

Datatype : (t_Special_Value)

Unordered sub-elements :

- SPECIAL_VALUE_INDEX , minOccurs=0
- SPECIAL_VALUE_TEXT , minOccurs=0
- Special_Value_Color , minOccurs=0

Possible parents :

- **Image_Display**

<SPECIAL_VALUE_INDEX>

Dimap_Generic, 1.0

Purpose

Entry (slot) index of the current special value

Description

This keyword provides the radiometric level (or pixel count) of the current special value.

A reserved value may result from :

- a radiometric value which does not correspond to any valid (physically meaningful) sensor information. This is also often called no-data value.
- a radiometric value corresponding to a classification theme (1:water, 2:forest, 3:open land,. . .)
- annotations burned into a raster image
- . . .

Example

```
<Special_Value>
   <SPECIAL_VALUE_INDEX>0</SPECIAL_VALUE_INDEX>
   <SPECIAL_VALUE_TEXT>No data, black edges outside of valid image
data</SPECIAL_VALUE_TEXT>
   <Special_Value_Color>
      ...
   </Special_Value_Color>
</Special_Value>

or

<Special_Value>
   <SPECIAL_VALUE_INDEX>10</SPECIAL_VALUE_INDEX>
   <SPECIAL_VALUE_TEXT>Forested areas</SPECIAL_VALUE_TEXT>
</Special_Value>
```

Datatype : (t_SPECIAL_VALUE_INDEX)

Restriction of Integer

Datatype : (Integer)
Restriction of xsd:integer

Possible parents :

- **Special_Value**

<SPECIAL_VALUE_TEXT> Dimap_Generic, 1.0

Purpose

Textual description (legend) of the current special value

Description

This keyword provides a textual description (legend) for the current special value, this could be a class name for a classified image. This keyword may contain additional markup such as HTML for complex legend formatting (datatype = Text).

A reserved value may result from :

- a radiometric value which does not correspond to any valid (physically meaningful) sensor information. This is also often called no-data value.
- a radiometric value corresponds to a classification theme (1:water, 2:forest, 3:open land,. . .)
- annotations burned into a raster image
- . . .

Example

```
<Special_Value>
   <SPECIAL_VALUE_INDEX>0</SPECIAL_VALUE_INDEX>
   <SPECIAL_VALUE_TEXT>No data, black edges outside of valid image
data</SPECIAL_VALUE_TEXT>
   <Special_Value_Color>
      ...
   </Special_Value_Color>
</Special_Value>

or

<Special_Value>
   <SPECIAL_VALUE_INDEX>10</SPECIAL_VALUE_INDEX>
   <SPECIAL_VALUE_TEXT>Forested areas</SPECIAL_VALUE_TEXT>
</Special_Value>
```

Datatype : (t_SPECIAL_VALUE_TEXT)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Special_Value**

<Special_Value_Color>

Dimap_Generic, 1.0

Purpose

Recommended special value display color

Description

Recommended special value display color. For example, this allows automatic colouring of specific values that may correspond to classification indices.

Example

```
<Special_Value_Color>
<!-- Dirty green, opaque --->
   <RED_LEVEL >0.1</RED_LEVEL>
   <GREEN_LEVEL>1.0</GREEN_LEVEL>
   <BLUE_LEVEL>0.2</BLUE_LEVEL>
</Special_Value_Color>

or

<Special_Value_Color>
<!-- White, semi-transparent --->
   <RED_LEVEL >1.0</RED_LEVEL>
   <GREEN_LEVEL>1.0</GREEN_LEVEL>
   <BLUE_LEVEL>1.0</BLUE_LEVEL>
   <ALPHA_LEVEL>0.5</ALPHA_LEVEL>
</Special_Value_Color>
or

<Special_Value_Color>
<!-- totally transparent, color can be anything --->
   <RED_LEVEL >0.0</RED_LEVEL>
   <GREEN_LEVEL>0.0</GREEN_LEVEL>
   <BLUE_LEVEL>0.0</BLUE_LEVEL>
   <ALPHA_LEVEL>0.0</ALPHA_LEVEL>
</Special_Value_Color>
```

Datatype : (t_Special_Value_Color)

Unordered sub-elements :

- RED_LEVEL
- GREEN_LEVEL
- BLUE_LEVEL
- ALPHA_LEVEL , minOccurs=0

Possible parents :

- **Special_Value**

<RED_LEVEL>

Dimap_Generic, 1.0

Purpose

Recommended display color, red intensity, of a special value

Description

The recommended display color of a special value is useful to deliver a kind of color palette (or look up table) when pixel intensity values have a special meaning such as a class number. This is particularly used in the case of thematic classified images.

The RED_LEVEL gives the recommended color for the red intensity of the current special value (RGB color model). It ranges from 0.0 to 1.0. 0.0 is black and 1.0 is maximum intensity (this needs to be converted to actual color components which depends on the display device).

Example

```
<Special_Value_Color>
<!-- Dirty green, opaque --->
   <RED_LEVEL >0.1</RED_LEVEL>
   <GREEN_LEVEL>1.0</GREEN_LEVEL>
   <BLUE_LEVEL>0.2</BLUE_LEVEL>
</Special_Value_Color>

or

<Special_Value_Color>
<!-- White, semi-transparent --->
   <RED_LEVEL >1.0</RED_LEVEL>
   <GREEN_LEVEL>1.0</GREEN_LEVEL>
   <BLUE_LEVEL>1.0</BLUE_LEVEL>
   <ALPHA_LEVEL>0.5</ALPHA_LEVEL>
</Special_Value_Color>
or

<Special_Value_Color>
<!-- totally transparent, color can be anything --->
   <RED_LEVEL >0.0</RED_LEVEL>
   <GREEN_LEVEL>0.0</GREEN_LEVEL>
   <BLUE_LEVEL>0.0</BLUE_LEVEL>
   <ALPHA_LEVEL>0.0</ALPHA_LEVEL>
</Special_Value_Color>
```

Datatype : (t_RED_LEVEL)

Restriction of ZeroOne

Datatype : (ZeroOne)
Restriction of xsd:double
Min value (inclusive) : 0.0
Max value (inclusive) : 1.0

Possible parents :

- **Special_Value_Color**

<GREEN_LEVEL>

Dimap_Generic, 1.0

Purpose

Recommended display color, green intensity, of a special value

Description

The recommended display color of a special value is useful to deliver a kind of color palette (or look up table) when pixel intensity values have a special meaning such as a class number. This is particularly used in the case of thematic classified images.

The GREEN_LEVEL gives the recommended color for the green intensity of the current special value (RGB color model). It ranges from 0.0 to 1.0. 0.0 is black and 1.0 is maximum intensity (this needs to be converted to actual color components which depends on the display device).

Example

```
<Special_Value_Color>
<!-- Dirty green, opaque --->
   <RED_LEVEL >0.1</RED_LEVEL>
   <GREEN_LEVEL>1.0</GREEN_LEVEL>
   <BLUE_LEVEL>0.2</BLUE_LEVEL>
</Special_Value_Color>

or

<Special_Value_Color>
<!-- White, semi-transparent --->
   <RED_LEVEL >1.0</RED_LEVEL>
   <GREEN_LEVEL>1.0</GREEN_LEVEL>
   <BLUE_LEVEL>1.0</BLUE_LEVEL>
   <ALPHA_LEVEL>0.5</ALPHA_LEVEL>
</Special_Value_Color>
or

<Special_Value_Color>
<!-- totally transparent, color can be anything --->
   <RED_LEVEL >0.0</RED_LEVEL>
   <GREEN_LEVEL>0.0</GREEN_LEVEL>
   <BLUE_LEVEL>0.0</BLUE_LEVEL>
   <ALPHA_LEVEL>0.0</ALPHA_LEVEL>
</Special_Value_Color>
```

Datatype : (t_GREEN_LEVEL)

Restriction of ZeroOne

Datatype : (ZeroOne)
Restriction of xsd:double
Min value (inclusive) : 0.0
Max value (inclusive) : 1.0

Possible parents :

- **Special_Value_Color**

<BLUE_LEVEL>

Dimap_Generic, 1.0

Purpose

Recommended display color, blue intensity, of a special value

Description

The recommended display color of a special value is useful to deliver a kind of color palette (or look up table) when pixel intensity values have a special meaning such as a class number. This is particularly used in the case of thematic classified images.

The BLUE_LEVEL gives the recommended color for the blue intensity of the current special value (RGB color model). It ranges from 0.0 to 1.0. 0.0 is black and 1.0 is maximum intensity (this needs to be converted to actual color components which depends on the display device).

Example

```
<Special_Value_Color>
<!-- Dirty green, opaque --->
   <RED_LEVEL >0.1</RED_LEVEL>
   <GREEN_LEVEL>1.0</GREEN_LEVEL>
   <BLUE_LEVEL>0.2</BLUE_LEVEL>
</Special_Value_Color>

or

<Special_Value_Color>
<!-- White, semi-transparent --->
   <RED_LEVEL >1.0</RED_LEVEL>
   <GREEN_LEVEL>1.0</GREEN_LEVEL>
   <BLUE_LEVEL>1.0</BLUE_LEVEL>
   <ALPHA_LEVEL>0.5</ALPHA_LEVEL>
</Special_Value_Color>
or

<Special_Value_Color>
<!-- totally transparent, color can be anything --->
   <RED_LEVEL >0.0</RED_LEVEL>
   <GREEN_LEVEL>0.0</GREEN_LEVEL>
   <BLUE_LEVEL>0.0</BLUE_LEVEL>
   <ALPHA_LEVEL>0.0</ALPHA_LEVEL>
</Special_Value_Color>
```

Datatype : (t_BLUE_LEVEL)

Restriction of ZeroOne

Datatype : (ZeroOne)
Restriction of xsd:double
Min value (inclusive) : 0.0
Max value (inclusive) : 1.0

Possible parents :

- **Special_Value_Color**

<ALPHA_LEVEL>

Dimap_Generic, 1.0

Purpose

Recommended display color, tranparency percentage, of a special value

Description

The recommended display color of a special value is useful to deliver a kind of color palette (or look up table) when pixel intensity values have a special meaning such as a class number. This is particularly used in the case of thematic classified images.

The ALPHA_LEVEL gives the recommended transparency percentage of the current special value (RGBA color model). It ranges from 0.0 to 1.0. 0.0 means totally transparent and 1.0 means totally opaque (the default).

Example

```
<Special_Value_Color>
<!-- Dirty green, opaque --->
   <RED_LEVEL >0.1</RED_LEVEL>
   <GREEN_LEVEL>1.0</GREEN_LEVEL>
   <BLUE_LEVEL>0.2</BLUE_LEVEL>
</Special_Value_Color>

or

<Special_Value_Color>
<!-- White, semi-transparent --->
   <RED_LEVEL >1.0</RED_LEVEL>
   <GREEN_LEVEL>1.0</GREEN_LEVEL>
   <BLUE_LEVEL>1.0</BLUE_LEVEL>
   <ALPHA_LEVEL>0.5</ALPHA_LEVEL>
</Special_Value_Color>
or

<Special_Value_Color>
<!-- totally transparent, color can be anything --->
   <RED_LEVEL >0.0</RED_LEVEL>
   <GREEN_LEVEL>0.0</GREEN_LEVEL>
   <BLUE_LEVEL>0.0</BLUE_LEVEL>
   <ALPHA_LEVEL>0.0</ALPHA_LEVEL>
</Special_Value_Color>
```

Datatype : (t_ALPHA_LEVEL)

Restriction of ZeroOne

Datatype : (ZeroOne)
Restriction of xsd:double
Min value (inclusive) : 0.0
Max value (inclusive) : 1.0

Possible parents :

- **Special_Value_Color**

<Band_Statistics>

Dimap_Generic, 1.0

Purpose

Basic statistics information for a given spectral band

Description

Basic statistics information for a given spectral band. These statistical information can be used to initialize a contrast stretching algorithm.

Example

```
<Band_Statistics>
   <STX_MIN>12.3</STX_MIN>
   <STX_MAX>198.2</STX_MAX>
   <STX_MEAN>82.5</STX_MEAN>
   <STX_STDV>28.4</STX_STDV>
   <STX_LIN_MIN>21.0</STX_LIN_MIN>
   <STX_LIN_MAX>143.8</STX_LIN_MAX>
   <BAND_INDEX>2</BAND_INDEX>
</Band_Statistics>
```

Datatype : (t_Band_Statistics)

Unordered sub-elements :

- BAND_INDEX
- STX_MIN , minOccurs=0
- STX_MAX , minOccurs=0
- STX_MEAN , minOccurs=0
- STX_STDV , minOccurs=0
- STX_LIN_MIN , minOccurs=0
- STX_LIN_MAX , minOccurs=0

Special constraint : id=C_39_1.1, xpath=//Image_Display/Band_Statistics

if present nb occ = NBANDS

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Image_Display**

<BAND_INDEX>

Dimap_Generic, 1.0

Purpose

The Band Index number the current group refers to

Description

Used in different groups in order to deliver the band index number (for multispectral images) that the current group is describing.

Example

```
<BAND_INDEX>1</BAND_INDEX>
```

Datatype : (t_BAND_INDEX)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Data_File**
- **Band_Statistics**
- **Spectral_Band_Info**
- **Band_Parameters**

<STX_MIN>

Dimap_Generic, 1.0

Purpose

Minimum data value for a given spectral band

Description

Minimum data value for a given spectral band.

Provided for on-load quick contrast/brihgtness adjustment. This keyword belongs to the Load&Go recommended display parameters.

Example

```
<Band_Statistics>
   <STX_MIN>12.3</STX_MIN>
   <STX_MAX>198.2</STX_MAX>
   <STX_MEAN>82.5</STX_MEAN>
   <STX_STDV>28.4</STX_STDV>
   <STX_LIN_MIN>21.0</STX_LIN_MIN>
   <STX_LIN_MAX>143.8</STX_LIN_MAX>
   <BAND_INDEX>2</BAND_INDEX>
</Band_Statistics>
```

Datatype : (t_STX_MIN)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- **Band_Statistics**

<STX_MAX>

Dimap_Generic, 1.0

Purpose

Maximum data value for a given spectral band.

Description

Maximum data value for a given spectral band.

Provided for on-load quick contrast/brihgtness adjustment. This keyword belongs to the Load&Go recommended display parameters.

Example

```
<Band_Statistics>
   <STX_MIN>12.3</STX_MIN>
   <STX_MAX>198.2</STX_MAX>
   <STX_MEAN>82.5</STX_MEAN>
   <STX_STDV>28.4</STX_STDV>
   <STX_LIN_MIN>21.0</STX_LIN_MIN>
   <STX_LIN_MAX>143.8</STX_LIN_MAX>
   <BAND_INDEX>2</BAND_INDEX>
</Band_Statistics>
```

Datatype : (t_STX_MAX)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- **Band_Statistics**

<STX_MEAN> Dimap_Generic, 1.0

Purpose

Mean of data values for a given spectral band

Description

Mean of data values for a given spectral band.

Provided for on-load quick contrast/brihgtness adjustment. This keyword belongs to the Load&Go recommended display parameters.

Example

```
<Band_Statistics>
   <STX_MIN>12.3</STX_MIN>
   <STX_MAX>198.2</STX_MAX>
   <STX_MEAN>82.5</STX_MEAN>
   <STX_STDV>28.4</STX_STDV>
   <STX_LIN_MIN>21.0</STX_LIN_MIN>
   <STX_LIN_MAX>143.8</STX_LIN_MAX>
   <BAND_INDEX>2</BAND_INDEX>
</Band_Statistics>
```

Datatype : (t_STX_MEAN)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- **Band_Statistics**

<STX_STDV>

Dimap_Generic, 1.0

Purpose

Standard deviation of data values for a given spectral band

Description

Standard deviation of data values for a given spectral band

Provided for on-load quick contrast/brihgtness adjustment. This keyword belongs to the Load&Go recommended display parameters.

Example

```
<Band_Statistics>
   <STX_MIN>12.3</STX_MIN>
   <STX_MAX>198.2</STX_MAX>
   <STX_MEAN>82.5</STX_MEAN>
   <STX_STDV>28.4</STX_STDV>
   <STX_LIN_MIN>21.0</STX_LIN_MIN>
   <STX_LIN_MAX>143.8</STX_LIN_MAX>
   <BAND_INDEX>2</BAND_INDEX>
</Band_Statistics>
```

Datatype : (t_STX_STDV)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- **Band_Statistics**

<STX_LIN_MIN>

Dimap_Generic, 1.0

Purpose

Recommended linear minimum stretching value for displaying the image for a given spectral band

Description

Recommended linear minimum stretching value for displaying the image for a given spectral band.

Provided for on-load quick contrast/brihgtness adjustment. This keyword belongs to the Load&Go recommended display parameters.

Example

```
<Band_Statistics>
   <STX_MIN>12.3</STX_MIN>
   <STX_MAX>198.2</STX_MAX>
   <STX_MEAN>82.5</STX_MEAN>
   <STX_STDV>28.4</STX_STDV>
   <STX_LIN_MIN>21.0</STX_LIN_MIN>
   <STX_LIN_MAX>143.8</STX_LIN_MAX>
   <BAND_INDEX>2</BAND_INDEX>
</Band_Statistics>
```

Datatype : (t_STX_LIN_MIN)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- **Band_Statistics**

<STX_LIN_MAX>

Dimap_Generic, 1.0

Purpose

Recommended linear maximum stretching value for displaying the image for a given spectral band

Description

Recommended linear maximum stretching value for displaying the image for the current spectral band.

Provided for on-load quick contrast/brihgtness adjustment. This keyword belongs to the Load&Go recommended display parameters.

Example

```
<Band_Statistics>
   <STX_MIN>12.3</STX_MIN>
   <STX_MAX>198.2</STX_MAX>
   <STX_MEAN>82.5</STX_MEAN>
   <STX_STDV>28.4</STX_STDV>
   <STX_LIN_MIN>21.0</STX_LIN_MIN>
   <STX_LIN_MAX>143.8</STX_LIN_MAX>
   <BAND_INDEX>2</BAND_INDEX>
</Band_Statistics>
```

Datatype : (t_STX_LIN_MAX)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- **Band_Statistics**

<Image_Interpretation>

Dimap_Generic, 1.0

Purpose

Information about the information carried out by the image and how to use and understand it

Description

Information about the information carried out by the image and how to use and understand it. Basically this would tell if the image is a picture or a DTM, or some other physical measurement. As well, some linear pixel value to physical measure conversion - also know as calibration - is provided (how to change a pixel value to absolute lightness for example)

Example

```
<Image_Display>
   <Spectral_Band_Info>
     <BAND_INDEX>1</BAND_INDEX>
     ...
   </Spectral_Band_Info>
   <Spectral_Band_Info>
     <BAND_INDEX>2</BAND_INDEX>
     ...
   </Spectral_Band_Info>
   <Spectral_Band_Info>
     <BAND_INDEX>3</BAND_INDEX>
     ...
   </Spectral_Band_Info>
</Image_Display>
```

Datatype : (t_Image_Interpretation)

Ordered sub-elements :

- Spectral_Band_Info , maxOccurs=unbounded , nb of occ = NBANDS

Possible parents :

- **Dimap_Document**

<Spectral_Band_Info>

Dimap_Generic, 1.0

Purpose

Information about a given spectral band of a raster image

Description

Information about a given spectral band of a raster image. The information delivered include a textual description as well as a set of parameters which allow to convert pixel grey scale values to physical measurements. Pixel grey scale values may correspond to radiance, elevation, magnetic field intensity,...

Example

```
<Spectral_Band_Info>
   <BAND_INDEX>2</BAND_INDEX>
   <BAND_DESCRIPTION>XS2</BAND_DESCRIPTION>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>XS1</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>W.M-2.ST-1.uM-1</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>0.708</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>0.0</PHYSICAL_BIAS>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>Elevation</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>M</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>10</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>-10000</PHYSICAL_BIAS>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>Magnetic intensity</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>uTesla</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>1.0</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>0.0</PHYSICAL_BIAS>
</Spectral_Band_Info>
```

Datatype : (t_Spectral_Band_Info)

Unordered sub-elements :

- BAND_INDEX
- BAND_DESCRIPTION
- PHYSICAL_GAIN , minOccurs=0
- PHYSICAL_BIAS , minOccurs=0
- PHYSICAL_UNIT , minOccurs=0

Special constraint : id=C_44_1.1, xpath=//Image_Interpretation/Spectral_Band_Info

nb of occ = NBANDS

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Image_Interpretation**

<BAND_INDEX> Dimap_Generic, 1.0

Purpose

The Band Index number the current group refers to

Description

Used in different groups in order to deliver the band index number (for multispectral images) that the current group is describing.

Example

```
<BAND_INDEX>1</BAND_INDEX>
```

Datatype : (t_BAND_INDEX)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Data_File**
- **Band_Statistics**
- **Spectral_Band_Info**
- **Band_Parameters**

<BAND_DESCRIPTION> Dimap_Generic, 1.0

Purpose

Textual description of current raster file band content

Description

This keyword allows a precise textual description of the semantic content of a given band number for a raster dataset. The associated BAND_INDEX keyword is used to explicitly identify which band index the current Spectral_Band_Description Group relates to. The number of occurrences of the Group this keyword belongs to (Spectral_Band_Description) must be equal to the value of NBANDS.

Typical values are :
- "PAN" for Panchromatic Spot data
- "XS1..3" for Multispectral Spot data
- "TM1..7" for Thematic Mapper Landsat data
- "Red pseudo-natural band"
- "P+XS1 merge"

Example

```
<Spectral_Band_Info>
   <BAND_INDEX>2</BAND_INDEX>
   <BAND_DESCRIPTION>XS2</BAND_DESCRIPTION>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>XS1</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>W.M-2.ST-1.uM-1</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>0.708</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>0.0</PHYSICAL_BIAS>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>Elevation</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>M</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>10</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>-10000</PHYSICAL_BIAS>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>Magnetic intensity</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>uTesla</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>1.0</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>0.0</PHYSICAL_BIAS>
</Spectral_Band_Info>
```

Datatype : (t_BAND_DESCRIPTION)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

Dimap : Digital Image Map xml metadata documentation

- **Spectral_Band_Info**

<PHYSICAL_GAIN>

Dimap_Generic, 1.0

Purpose

Raster to physical measure gain for the spectral band being described

Description

This record provides the gain to apply to the data radiometric count in order to convert it to a real physical measure such as Illumination or height :

L = X/A + B

where:

- L is the resulting physical value expressed in PHYSICAL_UNIT
- X is the radiometric value at a given pixel location as stored in the raster file (unitless).
- A is the gain (PHYSICAL_GAIN)
- B is the bias (PHYSICAL_BIAS)

Example

```
<Spectral_Band_Info>
   <BAND_INDEX>2</BAND_INDEX>
   <BAND_DESCRIPTION>XS2</BAND_DESCRIPTION>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>XS1</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>W.M-2.ST-1.uM-1</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>0.708</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>0.0</PHYSICAL_BIAS>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>Elevation</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>M</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>10</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>-10000</PHYSICAL_BIAS>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>Magnetic intensity</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>uTesla</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>1.0</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>0.0</PHYSICAL_BIAS>
</Spectral_Band_Info>
```

Datatype : (t_PHYSICAL_GAIN)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- **Spectral_Band_Info**

<PHYSICAL_BIAS>

Dimap_Generic, 1.0

Purpose

Raster to physical measure bias for the spectral band being described

Description

This record provides the bias (offset) to apply to the data radiometric count in order to convert it to a real physical measure such as Illumination or height :

L = X/A + B

where:

- L is the resulting physical value expressed in PHYSICAL_UNIT
- X is the radiometric value at a given pixel location as stored in the raster file (unitless).
- A is the gain (PHYSICAL_GAIN)
- B is the bias (PHYSICAL_BIAS)

Example

```
<Spectral_Band_Info>
   <BAND_INDEX>2</BAND_INDEX>
   <BAND_DESCRIPTION>XS2</BAND_DESCRIPTION>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>XS1</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>W.M-2.ST-1.uM-1</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>0.708</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>0.0</PHYSICAL_BIAS>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>Elevation</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>M</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>10</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>-10000</PHYSICAL_BIAS>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>Magnetic intensity</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>uTesla</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>1.0</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>0.0</PHYSICAL_BIAS>
</Spectral_Band_Info>
```

Datatype : (t_PHYSICAL_BIAS)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- **Spectral_Band_Info**

<PHYSICAL_UNIT>

Dimap_Generic, 1.0

Purpose

Physical measure unit for the spectral band being described

Description

This record provides the unit of the physical value resulting from data radiometric count to physical measure conversion such as Illumination or height :

L = X/A + B

where:

- L is the resulting physical value expressed in PHYSICAL_UNIT
- X is the radiometric value at a given pixel location as stored in the raster file (unitless).
- A is the gain (PHYSICAL_GAIN)
- B is the bias (PHYSICAL_BIAS)

Example

```
<Spectral_Band_Info>
   <BAND_INDEX>2</BAND_INDEX>
   <BAND_DESCRIPTION>XS2</BAND_DESCRIPTION>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>XS1</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>W.M-2.ST-1.uM-1</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>0.708</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>0.0</PHYSICAL_BIAS>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>Elevation</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>M</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>10</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>-10000</PHYSICAL_BIAS>
</Spectral_Band_Info>

or

<Spectral_Band_Info>
   <BAND_INDEX>1</BAND_INDEX>
   <BAND_DESCRIPTION>Magnetic intensity</BAND_DESCRIPTION>
   <PHYSICAL_UNIT>uTesla</PHYSICAL_UNIT>
   <PHYSICAL_GAIN>1.0</PHYSICAL_GAIN>
   <PHYSICAL_BIAS>0.0</PHYSICAL_BIAS>
</Spectral_Band_Info>
```

Datatype : (t_PHYSICAL_UNIT)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Spectral_Band_Info**

<Dataset_Sources>

Dimap_Generic, 1.0

Purpose

Dataset sources information

Description

A dataset can result from the combination of many different data sources and types. This is the place where to find all historical information about the original data from which the current dataset was made.

Example

```
<Dataset_Sources>
   <Source_Information>
      ...
   </Source_Information>
   <Source_Information>
     ...
   </Source_Information>
    ...
</Dataset_Sources>
```

Datatype : (t_Dataset_Sources)

Ordered sub-elements :

- Source_Information , maxOccurs=unbounded

Possible parents :

- **Dimap_Document**

<Source_Information>

Dimap_Generic, 1.0

Purpose

General information about this dataset source source

Description

General information about this dataset data sources. Data sources include original satellite scenes or aerial photographies, paper maps, GPS points...

Example

```
<Source_Information>
    <SOURCE_ID>GCP_50K_Bangladesh</SOURCE_ID>
    <SOURCE_TYPE>Ground Control Points</SOURCE_TYPE>
    <SOURCE_DESCRIPTION>GCPs measured on 1/50 000 map sheets from Ordonance
Survey 1950</SOURCE_DESCRIPTION>
</Source_Information>

or

<Source_Information>
   <SOURCE_ID>22342989303120450562X</SOURCE_ID>
   <SOURCE_TYPE>Spot satellite imagery</SOURCE_TYPE>
   <SOURCE_DESCRIPTION>Standard Spot Scene level 1A</SOURCE_DESCRIPTION>
   <Scene_Source>

      ...
    </Scene_Source>
    <Source_Frame>
     ...
   </Source_Frame>
</Source_Information>
```

Datatype : (t_Source_Information)

Unordered sub-elements :

- SOURCE_ID
- SOURCE_TYPE , minOccurs=0
- SOURCE_DESCRIPTION , minOccurs=0
- SOURCE_REF , minOccurs=0 , maxOccurs=0
- Coordinate_Reference_System , minOccurs=0
- Source_Frame , minOccurs=0
- Scene_Source , minOccurs=0
- Quality_Assessment , minOccurs=0
- Sensor_Calibration , minOccurs=0 , CM if unmerged full scene

Possible parents :

- **Dataset_Sources**

<SOURCE_ID>

Dimap_Generic, 1.0

Purpose

Identification string of the current dataset source

Description

This keyword provides an internal identification of the currentsource used in the dataset.

A source can be of any type : satellite scene, maps, GPS campain, touristic guides for place name,. . .

Example

```
<Source_Information>
    <SOURCE_ID>GCP_50K_Bangladesh</SOURCE_ID>
    <SOURCE_TYPE>Ground Control Points</SOURCE_TYPE>
    <SOURCE_DESCRIPTION>GCPs measured on 1/50 000 map sheets from Ordonance
Survey 1950</SOURCE_DESCRIPTION>
</Source_Information>

or

<Source_Information>
   <SOURCE_ID>22342989303120450562X</SOURCE_ID>
   <SOURCE_TYPE>Spot satellite imagery</SOURCE_TYPE>
   <SOURCE_DESCRIPTION>Standard Spot Scene level 1A</SOURCE_DESCRIPTION>
   <Scene_Source>

      ...
    </Scene_Source>
    <Source_Frame>
     ...
   </Source_Frame>
</Source_Information>
```

Datatype : (t_SOURCE_ID)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Source_Information**

<SOURCE_TYPE>

Dimap_Generic, 1.0

Purpose

Short textual type description of the current source of the dataset

Description

This keyword provides a short textual description of the type of the current source. Examples :

- "SPOT satellite scene"
- "Aerial photography"
- "Paper map"

Example

```
<Source_Information>
    <SOURCE_ID>GCP_50K_Bangladesh</SOURCE_ID>
    <SOURCE_TYPE>Ground Control Points</SOURCE_TYPE>
    <SOURCE_DESCRIPTION>GCPs measured on 1/50 000 map sheets from Ordonance
Survey 1950</SOURCE_DESCRIPTION>
</Source_Information>

or

<Source_Information>
   <SOURCE_ID>22342989303120450562X</SOURCE_ID>
   <SOURCE_TYPE>Spot satellite imagery</SOURCE_TYPE>
   <SOURCE_DESCRIPTION>Standard Spot Scene level 1A</SOURCE_DESCRIPTION>
   <Scene_Source>

      ...
    </Scene_Source>
    <Source_Frame>
     ...
   </Source_Frame>
</Source_Information>
```

Datatype : (t_SOURCE_TYPE)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Source_Information**

<SOURCE_DESCRIPTION> Dimap_Generic, 1.0

Purpose

Textual description of the current dataset source

Description

This keyword provides a textual description of the current source used to make the current dataset. It may contain additionnal markup such as HTML if the description is complex (datatype = Text).

A source can be of any type : satellite scene, maps, GPS campain, touristic guides for place name,. . .

Example

```
<Source_Information>
    <SOURCE_ID>GCP_50K_Bangladesh</SOURCE_ID>
    <SOURCE_TYPE>Ground Control Points</SOURCE_TYPE>
    <SOURCE_DESCRIPTION>GCPs measured on 1/50 000 map sheets from Ordonance
Survey 1950</SOURCE_DESCRIPTION>
</Source_Information>

or

<Source_Information>
   <SOURCE_ID>22342989303120450562X</SOURCE_ID>
   <SOURCE_TYPE>Spot satellite imagery</SOURCE_TYPE>
   <SOURCE_DESCRIPTION>Standard Spot Scene level 1A</SOURCE_DESCRIPTION>
   <Scene_Source>

      ...
    </Scene_Source>
    <Source_Frame>
     ...
   </Source_Frame>
</Source_Information>
```

Datatype : (t_SOURCE_DESCRIPTION)

Complex content :
Extension of Text

Possible parents :

- **Source_Information**

<SOURCE_REF> Dimap_Generic, 1.0

Purpose

Link to described source in the current dataset

Example

```
<Source_Information>
    <SOURCE_ID>GCP_50K_Bangladesh</SOURCE_ID>
    <SOURCE_TYPE>Ground Control Points</SOURCE_TYPE>
    <SOURCE_DESCRIPTION>GCPs measured on 1/50 000 map sheets from Ordonance
Survey 1950</SOURCE_DESCRIPTION>
</Source_Information>

or

<Source_Information>
   <SOURCE_ID>22342989303120450562X</SOURCE_ID>
   <SOURCE_TYPE>Spot satellite imagery</SOURCE_TYPE>
   <SOURCE_DESCRIPTION>Standard Spot Scene level 1A</SOURCE_DESCRIPTION>
   <Scene_Source>

      ...
    </Scene_Source>
    <Source_Frame>
     ...
   </Source_Frame>
</Source_Information>
```

Datatype : (t_SOURCE_REF)

Ordered sub-elements :

Possible parents :

- [Source_Information]

<Coordinate_Reference_System>

Dimap_Generic, 1.0

Purpose

Coordinate Reference System

Description

Coordinate Reference System is the main entry point for describing the coordinate system which is applicable to all the data included in the dataset.

Please check the Dimap Documentation for more information about the Dimap Geodetic scheme. The attached figure shows an abstract of this infromation.

Example

```
<Coordinate_Reference_Systsem>
  <GEO_TABLES version="4.2">EPSG</GEO_TABLES>
  <Horizontal_CS>
     ...
  </Horizontal_CS>
</Coordinate_Reference_System>

or

<Coordinate_Reference_Systsem>
  <GEO_TABLES version="4.2">EPSG</GEO_TABLES>
  <Horizontal_CS>
     ...
  </Horizontal_CS>
  <Vertical_CS>
     ...
  </Vertical_CS>
</Coordinate_Reference_System>
```

Datatype : (t_Coordinate_Reference_System)

Unordered sub-elements :

- GEO_TABLES
- Horizontal_CS
- Vertical_CS , minOccurs=0

Possible parents :

- **Dimap_Document**
- **Source_Information**

<GEO_TABLES>

Dimap_Generic, 1.0

Purpose

Geocoding tables identification

Description

Identification of the system/tables used for identifying geodetic parameters Use of EPSG/GeoTiff is strongly recommended, but other coding schemes can be used, provided the customer and the producer agree on a private scheme.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<GEO_TABLES version="5.2">EPSG</GEO_TABLES>
```

Datatype : (t_GEO_TABLES)

Simple content :
Restriction of String_Version
- *EPSG*
- *GEOTIFF*
- *SPOT*
- *SATELLUS*
- *CUSTOM*

Extension of xsd:string
Attribute : **version** of type xsd:string

Possible parents :

- **Coordinate_Reference_System**

<Horizontal_CS>

Dimap_Generic, 1.0

Purpose

Horizontal (2D) Coordinate System description

Description

The Horizontal (2D) Coordinate System is part of the CRS description. It can be either a projected CS or a geographic CS. This matches the EPSG definition. Often a CRS is a Horizontal_CS when height is not involved.

Please refer to the Dimap Documentation for more details.

Example

```
<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Lambert 2 etendu France</HORIZONTAL_CS_NAME>
  <HORIZONTAL_CS_CODE>epsg:27582</HORIZONTAL_CS_CODE>
 </Horizontal_CS>

or

<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Special</HORIZONTAL_CS_NAME>
  <Projection>
    ...
  </Projection>
  <Geographic_CS>
    ...
  </Geographic_CS>
 </Horizontal_CS>
```

Datatype : (t_Horizontal_CS)

Unordered sub-elements :

- HORIZONTAL_CS_TYPE
- HORIZONTAL_CS_NAME
- HORIZONTAL_CS_CODE , minOccurs=0
- Geographic_CS , minOccurs=0 , CM if HORIZONTAL_CS_CODE not present
- Projection , minOccurs=0 , CM if HORIZONTAL_CS_CODE not present and HORIZONTAL_CS_TYPE=PROJECTED
- Coordinate_Axis , minOccurs=0

Possible parents :

- **Coordinate_Reference_System**

<HORIZONTAL_CS_TYPE>

Dimap_Generic, 1.0

Purpose

Horizontal Coordinate System type

Description

This keyword provides the type of the Horizontal Coordinate System. The type can be either PROJECTED, GEOGRAPHIC or OTHER.

- PROJECTED means that the Horizontal Coordinate System is a cartographic projection
- GEOGRAPHIC means that the Horizontal Coordinate System is unprojected (longitude/latitude used)
- OTHER means that some other type is used, for example a local coordinate system associated to paper coordinate axis for a sanned cadastral map.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Lambert 2 etendu France</HORIZONTAL_CS_NAME>
  <HORIZONTAL_CS_CODE>epsg:27582</HORIZONTAL_CS_CODE>
 </Horizontal_CS>

or

<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Special</HORIZONTAL_CS_NAME>
  <Projection>
    ...
  </Projection>
  <Geographic_CS>
    ...
  </Geographic_CS>
 </Horizontal_CS>
```

Datatype : (t_HORIZONTAL_CS_TYPE)

Restriction of Horizontal_CS_Types

Datatype : (Horizontal_CS_Types)
Restriction of xsd:string
- *PROJECTED*
- *GEOGRAPHIC*
- *OTHER*

Possible parents :

- **Horizontal_CS**

<HORIZONTAL_CS_NAME>

Dimap_Generic, 1.0

Purpose

Horizontal coordinate system identification name

Description

This keyword provides the name of the Horizontal Coordinate System in use. The name space relates to the Geodetic Tables defined by the GEO_TABLES keyword if defined.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Lambert 2 etendu France</HORIZONTAL_CS_NAME>
  <HORIZONTAL_CS_CODE>epsg:27582</HORIZONTAL_CS_CODE>
 </Horizontal_CS>

or

<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Special</HORIZONTAL_CS_NAME>
  <Projection>
    ...
  </Projection>
  <Geographic_CS>
    ...
  </Geographic_CS>
 </Horizontal_CS>
```

Datatype : (t_HORIZONTAL_CS_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Horizontal_CS**

<HORIZONTAL_CS_CODE>

Dimap_Generic, 1.0

Purpose

Horizontal coordinate system identification code

Description

This keyword provides the unique identification code of the Horizontal Coordinate System in use. This code relates to the Geodetic Tables defined by the GEO_TABLES keyword (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Lambert 2 etendu France</HORIZONTAL_CS_NAME>
  <HORIZONTAL_CS_CODE>epsg:27582</HORIZONTAL_CS_CODE>
 </Horizontal_CS>

or

<Horizontal_CS>
  <HORIZONTAL_CS_TYPE>PROJECTED</HORIZONTAL_CS_TYPE>
  <HORIZONTAL_CS_NAME>Special</HORIZONTAL_CS_NAME>
  <Projection>
    ...
  </Projection>
  <Geographic_CS>
    ...
  </Geographic_CS>
 </Horizontal_CS>
```

Datatype : (t_HORIZONTAL_CS_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Horizontal_CS**

<Geographic_CS>

Dimap_Generic, 1.0

Purpose

Geographic Coordinate System description

Description

The Geographic Coordinate System description is part of the CRS description. This is the top level entry for completely defining a geographic coordinate system (ellipsoid, datum, prime meridian,...)

Please refer to the Dimap Documentation for a complete description of the Dimap Geodetic scheme.

Example

```
<Geographic_CS>
  <GEOGRAPHIC_CS_NAME>GCS_ED50</GEOGRAPHIC_CS_NAME>
  <GEOGRAPHIC_CS_CODE>epsg:4230</GEOGRAPHIC_CS_CODE>
</Geographic_CS>

or

<Geographic_CS>

  <GEOGRAPHIC_CS_NAME>Special Bangladesh</GEOGRAPHIC_CS_NAME>
  <Horizontal_Datum>
    ...
  </Horizontal_Datum>
</Geographic_CS>
```

Datatype : (t_Geographic_CS)

Unordered sub-elements :

- GEOGRAPHIC_CS_NAME
- GEOGRAPHIC_CS_CODE , minOccurs=0
- Horizontal_Datum , minOccurs=0 , CM if GEOGRAPHIC_CS_CODE not present

Special constraint : id=C_13_1.2, xpath=//Horizontal_CS/Geographic_CS

CM if HORIZONTAL_CS_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Horizontal_CS**

<GEOGRAPHIC_CS_NAME>

Dimap_Generic, 1.0

Purpose

Geographic coordinate system textual identification (name)

Description

This record provides the name of the Geographical Coordinate System (GCS). This name could be automatically derived from the geodetic tables specified by GEO_TABLES and from GCS_CODE.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Geographic_CS>
  <GEOGRAPHIC_CS_NAME>GCS_ED50</GEOGRAPHIC_CS_NAME>
  <GEOGRAPHIC_CS_CODE>epsg:4230</GEOGRAPHIC_CS_CODE>
</Geographic_CS>

or

<Geographic_CS>

  <GEOGRAPHIC_CS_NAME>Special Bangladesh</GEOGRAPHIC_CS_NAME>
  <Horizontal_Datum>
    ...
  </Horizontal_Datum>
</Geographic_CS>
```

Datatype : (t_GEOGRAPHIC_CS_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Geographic_CS**

<GEOGRAPHIC_CS_CODE> Dimap_Generic, 1.0

Purpose

Geographic coordinate system identification code

Description

This keyword provides the code for identification of the Geographic Coordinate System (GCS) used in the current layer. The code refers to the coding scheme defined by the keyword GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Geographic_CS>
  <GEOGRAPHIC_CS_NAME>GCS_ED50</GEOGRAPHIC_CS_NAME>
  <GEOGRAPHIC_CS_CODE>epsg:4230</GEOGRAPHIC_CS_CODE>
</Geographic_CS>

or

<Geographic_CS>

  <GEOGRAPHIC_CS_NAME>Special Bangladesh</GEOGRAPHIC_CS_NAME>
  <Horizontal_Datum>
    ...
  </Horizontal_Datum>
</Geographic_CS>
```

Datatype : (t_GEOGRAPHIC_CS_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Geographic_CS**

<Horizontal_Datum>

Dimap_Generic, 1.0

Purpose

Horizontal Datum description

Description

Horizontal Datum description (Geographic Coordinate System shift)

Example

```
<Horizontal_Datum>
  <HORIZONTAL_DATUM_NAME>Datum_Indian_1954</HORIZONTAL_DATUM_NAME>
  <HORIZONTAL_DATUM_CODE>epsg:6239</HORIZONTAL_DATUM_CODE>
  <Prime_Meridian>
    ...
  </Prime_Meridian>
  <Ellipsoid>
    ...
  </Ellipsoid>
</Horizontal_Datum>
```

Datatype : (t_Horizontal_Datum)

Unordered sub-elements :

- HORIZONTAL_DATUM_NAME , minOccurs=0
- HORIZONTAL_DATUM_CODE , minOccurs=0
- Prime_Meridian , minOccurs=0
- Ellipsoid , minOccurs=0 , CM if HORIZONTAL_DATUM_CODE not present

Special constraint : id=C_14_1.2, xpath=//Geographic_CS/Prime_Meridian

CM if GEOGRAPHIC_CS_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Geographic_CS**

<HORIZONTAL_DATUM_NAME> Dimap_Generic, 1.0

Purpose

Horizontal datum shift identification name

Description

This keyword provides the name defining the Horizontal Datum. The name space relates to the coding scheme defined by the GEO_TABLES keyword.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Horizontal_Datum>
  <HORIZONTAL_DATUM_NAME>Datum_Indian_1954</HORIZONTAL_DATUM_NAME>
  <HORIZONTAL_DATUM_CODE>epsg:6239</HORIZONTAL_DATUM_CODE>
  <Prime_Meridian>
    ...
  </Prime_Meridian>
  <Ellipsoid>
    ...
  </Ellipsoid>
</Horizontal_Datum>
```

Datatype : (t_HORIZONTAL_DATUM_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Horizontal_Datum**

<HORIZONTAL_DATUM_CODE> Dimap_Generic, 1.0

Purpose

Horizontal datum shift identification code

Description

This keyword provides the unique identification code defining the Horizontal Datum. The code relates to the coding scheme defined by the GEO_TABLES keyword (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Horizontal_Datum>
  <HORIZONTAL_DATUM_NAME>Datum_Indian_1954</HORIZONTAL_DATUM_NAME>
  <HORIZONTAL_DATUM_CODE>epsg:6239</HORIZONTAL_DATUM_CODE>
  <Prime_Meridian>
    ...
  </Prime_Meridian>
  <Ellipsoid>
    ...
  </Ellipsoid>
</Horizontal_Datum>
```

Datatype : (t_HORIZONTAL_DATUM_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Horizontal_Datum**

<Prime_Meridian>

Dimap_Generic, 1.0

Purpose

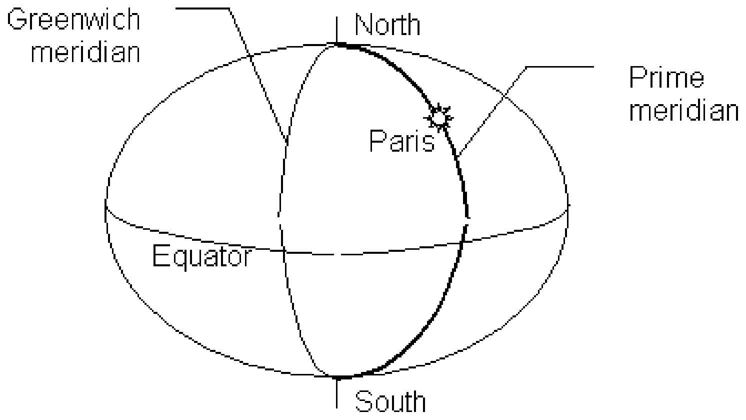
Prime Meridian description

Description

Prime Meridian description is part of the Coordinate_Reference_System/Geographic_CS information.

Please refer to the Dimap Documentation for more details.

Illustration



Example

```
<Prime_Meridian>
  <PRIME_MERIDIAN_NAME>Paris</PRIME_MERIDIAN_NAME>
  <PRIME_MERIDIAN_CODE>epsg:8903</PRIME_MERIDIAN_CODE>
  <PRIME_MERIDIAN_OFFSET unit="GON">2.5969</PRIME_MERIDIAN_OFFSET>
</Prime_Meridian>
```

Datatype : (t_Prime_Meridian)

Unordered sub-elements :

- PRIME_MERIDIAN_NAME , minOccurs=0
- PRIME_MERIDIAN_CODE , minOccurs=0
- PRIME_MERIDIAN_OFFSET , minOccurs=0 , CM if PRIME_MERIDIAN_CODE not present

Possible parents :

- **Horizontal_Datum**

<PRIME_MERIDIAN_NAME> Dimap_Generic, 1.0

Purpose

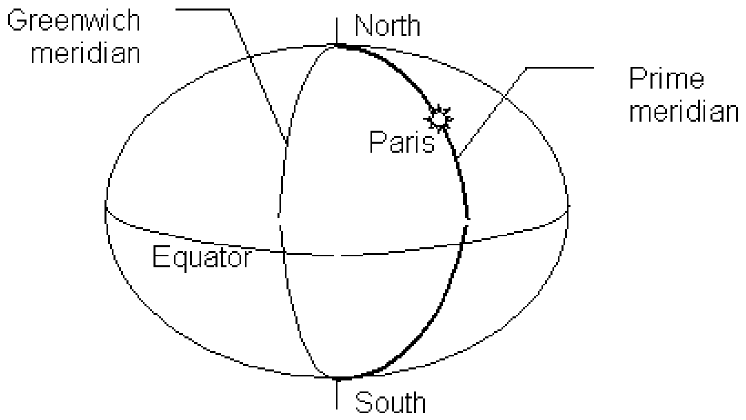
Prime meridian identification name

Description

This record provides the name of the prime meridian of the geographic coordinate system. It gives the textual information associated to PRIME_MERIDIAN_CODE

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Prime_Meridian>
  <PRIME_MERIDIAN_NAME>Paris</PRIME_MERIDIAN_NAME>
  <PRIME_MERIDIAN_CODE>epsg:8903</PRIME_MERIDIAN_CODE>
  <PRIME_MERIDIAN_OFFSET unit="GON">2.5969</PRIME_MERIDIAN_OFFSET>
</Prime_Meridian>
```

Datatype : (t_PRIME_MERIDIAN_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Prime_Meridian**

<PRIME_MERIDIAN_CODE>

Dimap_Generic, 1.0

Purpose

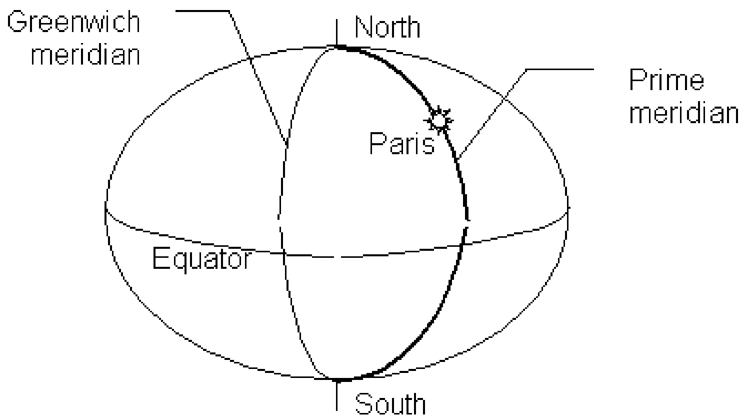
Prime meridian identification code

Description

This record provides the code for identification of the prime meridian of the geographic coordinate system, and used for georeferencing the current map. The code refers to the coding system indicated in GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Prime_Meridian>
  <PRIME_MERIDIAN_NAME>Paris</PRIME_MERIDIAN_NAME>
  <PRIME_MERIDIAN_CODE>epsg:8903</PRIME_MERIDIAN_CODE>
  <PRIME_MERIDIAN_OFFSET unit="GON">2.5969</PRIME_MERIDIAN_OFFSET>
</Prime_Meridian>
```

Datatype : (t_PRIME_MERIDIAN_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Prime_Meridian**

<PRIME_MERIDIAN_OFFSET> Dimap_Generic, 1.0

Purpose

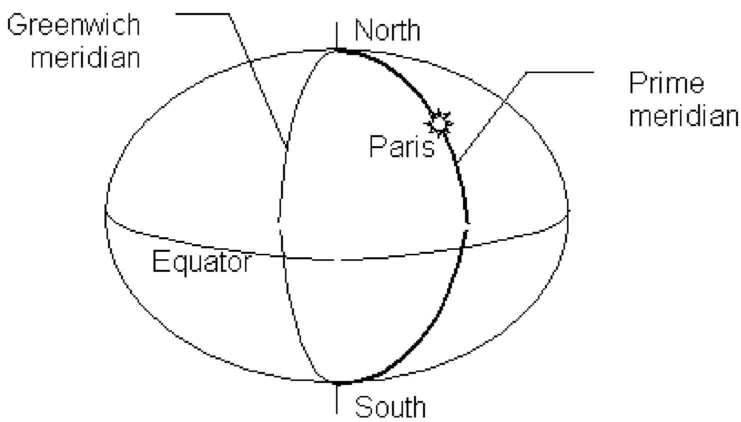
Prime meridian offset towards Greenwich meridian

Description

This record provides the angular offset of the prime meridian of the geographic coordinate system. It is measured from the Greenwich meridian and is positive towards East .

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Prime_Meridian>
  <PRIME_MERIDIAN_NAME>Paris</PRIME_MERIDIAN_NAME>
  <PRIME_MERIDIAN_CODE>epsg:8903</PRIME_MERIDIAN_CODE>
  <PRIME_MERIDIAN_OFFSET unit="GON">2.5969</PRIME_MERIDIAN_OFFSET>
</Prime_Meridian>
```

Datatype : (t_PRIME_MERIDIAN_OFFSET)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_PRIME_MERIDIAN_OFFSET_Angular_Unit

Datatype : (k_PRIME_MERIDIAN_OFFSET_Angular_Unit)
Restriction of String
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_15_1.2, xpath=//Prime_Meridian/PRIME_MERIDIAN_OFFSET

CM if PRIME_MERIDIAN_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Prime_Meridian**

<Ellipsoid>

Dimap_Generic, 1.0

Purpose

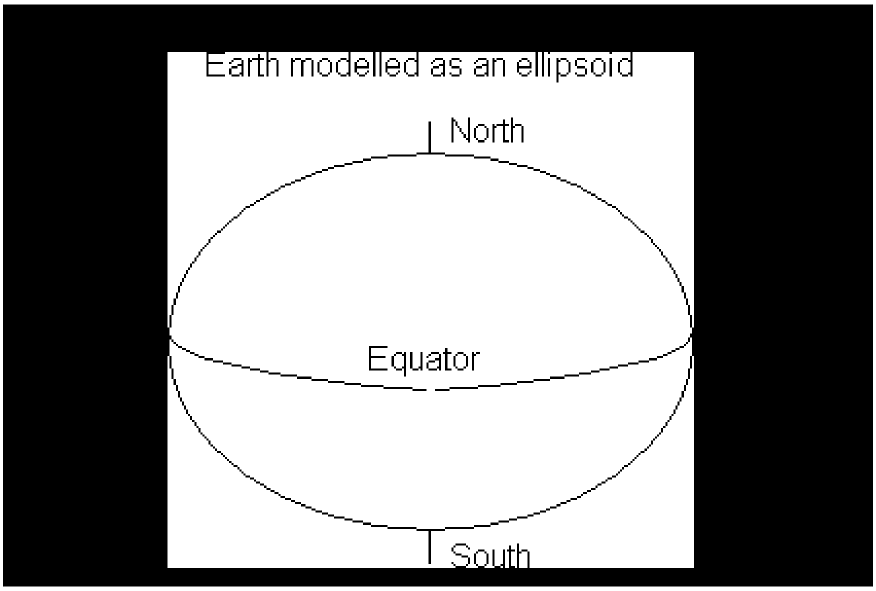
Ellipsoid description

Description

Ellipsoid description is part of the CRS description. It is used to model the Earth surface. Tens of different ellipsoids are currently in use in different countries, mainly for historical reasons.

Please refer to the Dimap Documentation for a complete description of the Dimap Geodetic scheme.

Illustration



Example

```
<Ellipsoid>
  <ELLIPSOID_NAME>Ellipse_Everest_1830_1937_Adjustment</ELLIPSOID_NAME>
  <ELLIPSOID_CODE>epsg:7015</ELLIPSOID_CODE>
</Ellipsoid>

or

<Ellipsoid>
  <ELLIPSOID_NAME>Special Ellipsoid</ELLIPSOID_NAME>
  <Ellipsoid_Parameters>
    ...
  </Ellipsoid_Parameters>
</Ellipsoid>
```

Datatype : (t_Ellipsoid)

Unordered sub-elements :

- ELLIPSOID_NAME , minOccurs=0
- ELLIPSOID_CODE , minOccurs=0
- Ellipsoid_Parameters , minOccurs=0 , CM if ELLIPSOID_CODE not present

Special constraint : id=C_16_1.2, xpath=//Horizontal_Datum/Ellipsoid

CM if HORIZONTAL_DATUM_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Horizontal_Datum**

<ELLIPSOID_NAME>

Dimap_Generic, 1.0

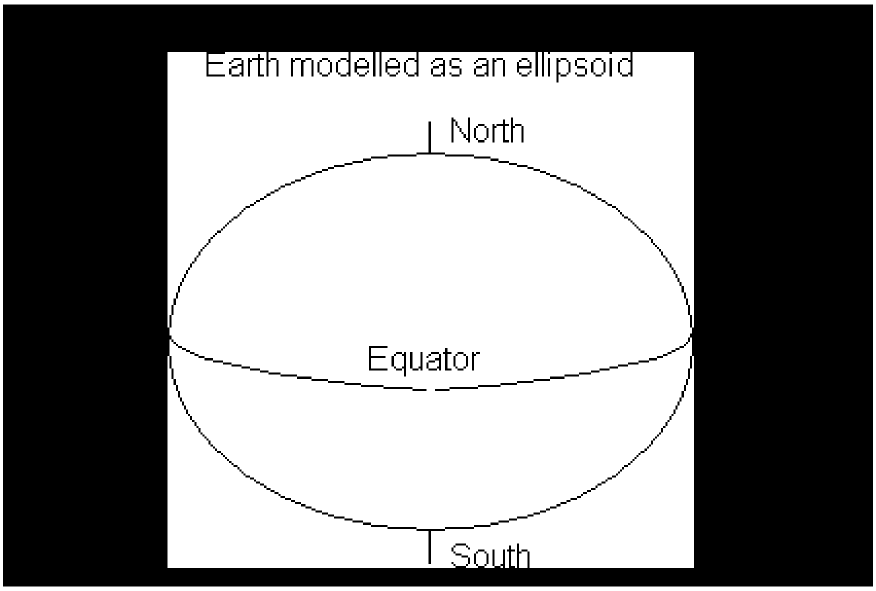
Purpose

Ellipsoid textual description (name)

Description

This record is expected to provide a humanly readable ellispoid identification. Though the value field is free text, the identification should be non ambiguous: standard or full name, country, year...Often the name can be automatically derived from the code through the geodetic tables in use (GEO_TABLES).

Illustration



Example

```
<Ellipsoid>
  <ELLIPSOID_NAME>Ellipse_Everest_1830_1937_Adjustment</ELLIPSOID_NAME>
  <ELLIPSOID_CODE>epsg:7015</ELLIPSOID_CODE>
</Ellipsoid>

or

<Ellipsoid>
  <ELLIPSOID_NAME>Special Ellipsoid</ELLIPSOID_NAME>
  <Ellipsoid_Parameters>
    ...
  </Ellipsoid_Parameters>
</Ellipsoid>
```

Datatype : (t_ELLIPSOID_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Ellipsoid**

<ELLIPSOID_CODE>

Dimap_Generic, 1.0

Purpose

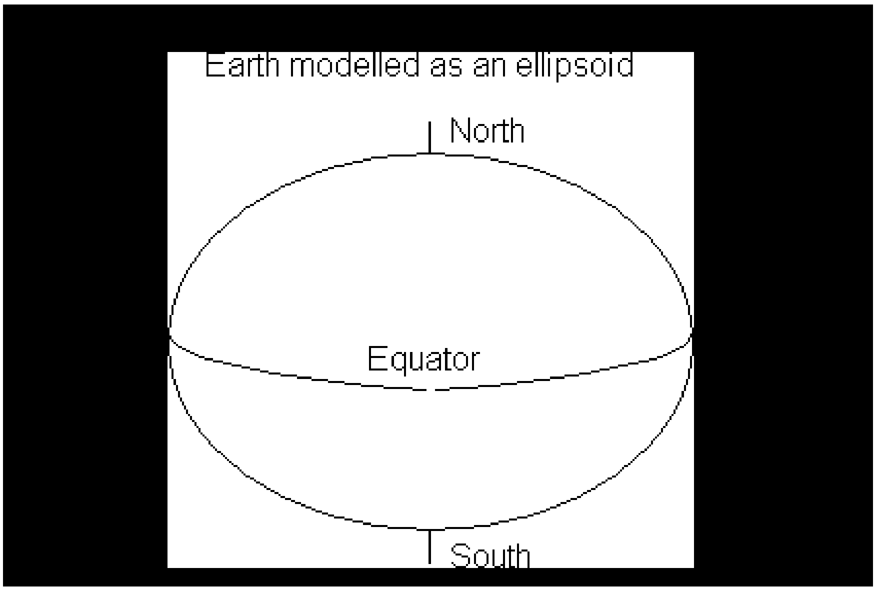
Ellipsoid identification code

Description

This record provides the ellipsoid identification code according to the tables specified by GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself). Please note that this code can be either a number or a string of characters (no blanks).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Ellipsoid>
  <ELLIPSOID_NAME>Ellipse_Everest_1830_1937_Adjustment</ELLIPSOID_NAME>
  <ELLIPSOID_CODE>epsg:7015</ELLIPSOID_CODE>
</Ellipsoid>

or

<Ellipsoid>
  <ELLIPSOID_NAME>Special Ellipsoid</ELLIPSOID_NAME>
  <Ellipsoid_Parameters>
    ...
  </Ellipsoid_Parameters>
</Ellipsoid>
```

Datatype : (t_ELLIPSOID_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Ellipsoid**

<Ellipsoid_Parameters>

Dimap_Generic, 1.0

Purpose

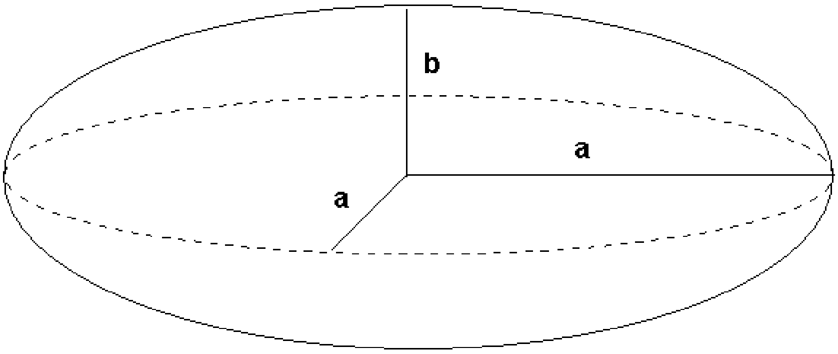
Ellipsoid parameters

Description

Ellipsoid parameters are part of the CRS description. The Ellipsoid parameters mathematically define the shape of Earth.

Please refer to the Dimap Documentation for a complete description of the Dimap Geodetic scheme.

Illustration



Example

```
<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_MIN_AXIS unit="M">62341234.3<ELLIPSOID_MIN_AXIS>
</Ellipsoid_Parameters>

or

<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_INV_FLAT>308.0<ELLIPSOID_INV_FLAT>
</Ellipsoid_Parameters>
```

Datatype : (t_Ellipsoid_Parameters)

Ordered sub-elements :

- ELLIPSOID_MAJOR_AXIS

Special constraint : id=C_17_1.2, xpath=//Ellipsoid/Ellipsoid_Parameters

CM if ELLIPSOID_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Ellipsoid**

<ELLIPSOID_MINOR_AXIS> Dimap_Generic, 1.0

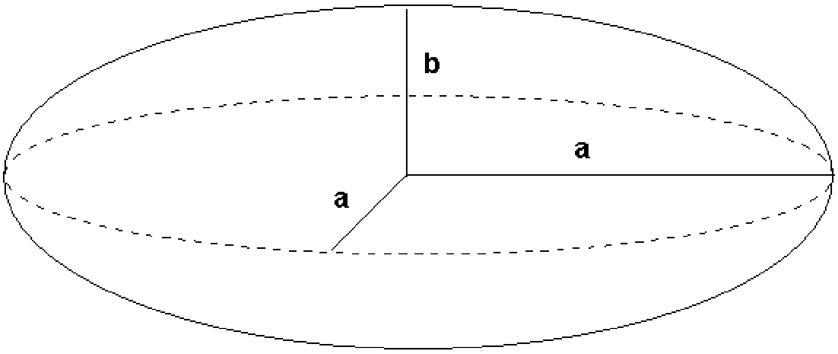
Purpose

Ellipsoid semi-minor axis value

Description

This record provides the value of the semi-minor axis of the ellipsoid used. It is used in conjunction with the ELLIPSOID_MAJOR_AXIS keyword.

Illustration



Example

```
<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_MIN_AXIS unit="M">62341234.3<ELLIPSOID_MIN_AXIS>
</Ellipsoid_Parameters>

or

<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_INV_FLAT>308.0<ELLIPSOID_INV_FLAT>
</Ellipsoid_Parameters>
```

Datatype : (t_ELLIPSOID_MINOR_AXIS)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_ELLIPSOID_MINOR_AXIS_Linear_Unit

Datatype : (k_ELLIPSOID_MINOR_AXIS_Linear_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***

- CM
- KM
- FTIND
- SFT

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Ellipsoid_Parameters**

<ELLIPSOID_INVERSE_FLATTENING> Dimap_Generic, 1.0

Purpose

Ellipsoid inverse of flattening value

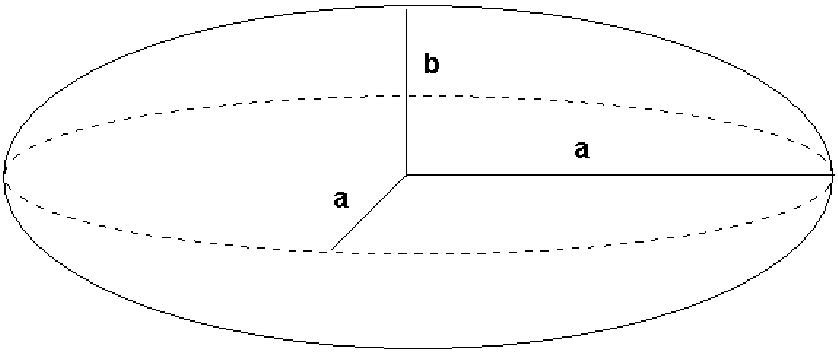
Description

This record provides the inverse of the flattening of the ellipsoid used. The value has no unit (since its is a ratio). It is used in conjunction with the ELLIPSOID_MAJOR_AXIS keyword as an alternative to ELLIPSOID_MINOR_AXIS.

If ELLIPSOID_INVERSE_FLATTENING is given, ELLIPSOID_MINOR_AXIS must not be provided to avoid redundancy.

ELLIPSOID_INVERSE_FLATTENING= ELLIPSOID_MAJOR_AXIS / (ELLIPSOID_MAJOR_AXIS - ELLIPSOID_MINOR_AXIS)

Illustration



Example

```
<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_MIN_AXIS unit="M">62341234.3<ELLIPSOID_MIN_AXIS>
</Ellipsoid_Parameters>

or

<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_INV_FLAT>308.0<ELLIPSOID_INV_FLAT>
</Ellipsoid_Parameters>
```

Datatype : (t_ELLIPSOID_INVERSE_FLATTENING)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- **Ellipsoid_Parameters**

<ELLIPSOID_MAJOR_AXIS> Dimap_Generic, 1.0

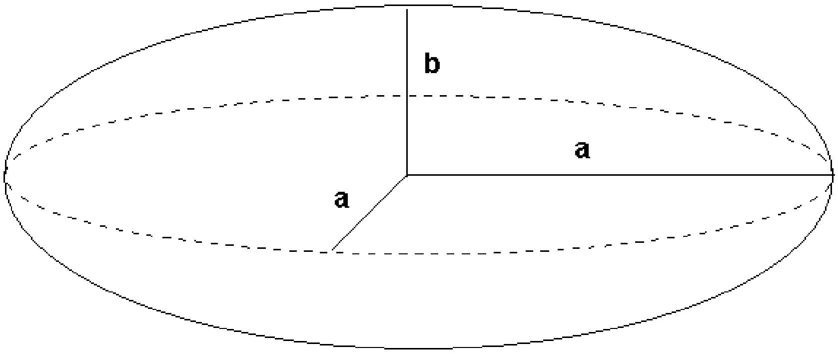
Purpose

Ellipsoid semi-major axis value

Description

This record provides the value of the semi-major axis of the ellipsoid used. It must be used in conjunction with the ELLIPSOID_MINOR_AXIS keyword or (exclusive) with ELLIPSOID_INVERSE_FLATTENING.

Illustration



Example

```
<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_MIN_AXIS unit="M">62341234.3<ELLIPSOID_MIN_AXIS>
</Ellipsoid_Parameters>

or

<Ellipsoid_Parameters>
  <ELLIPSOID_MAJ_AXIS unit="M">62341234.3<ELLIPSOID_MAJ_AXIS>
  <ELLIPSOID_INV_FLAT>308.0<ELLIPSOID_INV_FLAT>
</Ellipsoid_Parameters>
```

Datatype : (t_ELLIPSOID_MAJOR_AXIS)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_ELLIPSOID_MAJOR_AXIS_Linear_Unit

Datatype : (k_ELLIPSOID_MAJOR_AXIS_Linear_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***

- *CM*
- *KM*
- *FTIND*
- *SFT*

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Ellipsoid_Parameters**

<Projection>

Dimap_Generic, 1.0

Purpose

Projection description

Description

The Projection description is part of the Coordinate_Reference_System/Horizontal_CS description.

Please refer to the Dimap Documentation for more details.

Example

```
<Projection>
  <PROJECTION_NAME>UTM zone 31N</PROJECTION_NAME>
  <PROJECTION_CODE>16031</PROJECTION_CODE>
</Projection>

or

<Projection>
  <PROJECTION_NAME>Tranverse Mercator Bangladesh</PROJECTION_NAME>
  <Projection_CT_Method>
    ...
  </Projection_CT_Method>
 </Projection>
```

Datatype : (t_Projection)

Unordered sub-elements :

- PROJECTION_NAME , minOccurs=0
- PROJECTION_CODE , minOccurs=0
- Projection_CT_Method , minOccurs=0 , CM if PROJECTION_CODE not present

Special constraint : id=C_13_2.2, xpath=//Horizontal_CS/Projection

CM if HORIZONTAL_CS_CODE not present and HORIZONTAL_CS_TYPE=PROJECTED

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Horizontal_CS**

<PROJECTION_NAME>

Dimap_Generic, 1.0

Purpose

Projection identification name

Description

This keyword provides the identification name for the projection being used within the CRS (text definition corresponding to PROJECTION_CODE). The name should belong to the name space defined by the GEO_TABLES keyword.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection>
  <PROJECTION_NAME>UTM zone 31N</PROJECTION_NAME>
  <PROJECTION_CODE>16031</PROJECTION_CODE>
</Projection>

or

<Projection>
  <PROJECTION_NAME>Tranverse Mercator Bangladesh</PROJECTION_NAME>
  <Projection_CT_Method>
    ...
  </Projection_CT_Method>
 </Projection>
```

Datatype : (t_PROJECTION_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Projection**

<PROJECTION_CODE>

Dimap_Generic, 1.0

Purpose

Projection idendification code

Description

This record provides a unique identification code of the projection used within the CRS (Coordinate Reference System). The code range and the projection information attached to that entry is dependant upon the coding scheme being used, defined by GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection>
  <PROJECTION_NAME>UTM zone 31N</PROJECTION_NAME>
  <PROJECTION_CODE>16031</PROJECTION_CODE>
</Projection>

or

<Projection>
  <PROJECTION_NAME>Tranverse Mercator Bangladesh</PROJECTION_NAME>
  <Projection_CT_Method>
    ...
  </Projection_CT_Method>
 </Projection>
```

Datatype : (t_PROJECTION_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Projection**

<Projection_CT_Method>

Dimap_Generic, 1.0

Purpose

Projection : Coordinate Transform Method

Description

The Coordinate Transform Method is part of the Projection information. It identifies the set of mathematical equations used to perform the cartographic projection.

Please refer to the Dimap Documentation for more details.

Example

```
<Projection_CT_Method>
  <PROJECTION_CT_NAME>CT_TransverseMercator</PROJECTION_CT_NAME>
  <PROJECTION_CT_CODE>epsg:1</PROJECTION_CT_CODE>
  <Projection_Parameters>
    ...
  </Projection_Parameters>
</Projection_CT_Method>
```

Datatype : (t_Projection_CT_Method)

Unordered sub-elements :

- PROJECTION_CT_NAME
- PROJECTION_CT_CODE , minOccurs=0
- Projection_Parameters , minOccurs=0 , CM if PROJECTION_CT_CODE not present

Special constraint : id=C_19_1.2, xpath=//Projection/Projection_CT_Method

CM if PROJECTION_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Projection**

<PROJECTION_CT_NAME>

Dimap_Generic, 1.0

Purpose

Projection coordinate transformation identification name

Description

This keyword provides the identification name for the Coordinate Transform method. The Coordinate Transform method is a set of mathemetical relationships between the Geographic Coordinate System and the Cartographic Coordinate System associated to a set of parameters. The name should belong to the name space defined by the GEO_TABLES keyword.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection_CT_Method>
  <PROJECTION_CT_NAME>CT_TransverseMercator</PROJECTION_CT_NAME>
  <PROJECTION_CT_CODE>epsg:1</PROJECTION_CT_CODE>
  <Projection_Parameters>
    ...
  </Projection_Parameters>
</Projection_CT_Method>
```

Datatype : (t_PROJECTION_CT_NAME)

Simple content :
Extension of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Projection_CT_Method**

<PROJECTION_CT_CODE>

Dimap_Generic, 1.0

Purpose

Projection coordinate transform identification code

Description

This keyword provides the unique identification code for the Coordinate Transform method. The Coordinate Transform method is a set of mathemetical relationships between the Geographic Coordinate System and the Cartographic Coordinate System associated to a set of parameters. The code range is dependant upon the coding scheme being used, defined by GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection_CT_Method>
  <PROJECTION_CT_NAME>CT_TransverseMercator</PROJECTION_CT_NAME>
  <PROJECTION_CT_CODE>epsg:1</PROJECTION_CT_CODE>
  <Projection_Parameters>
    ...
  </Projection_Parameters>
</Projection_CT_Method>
```

Datatype : (t_PROJECTION_CT_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Projection_CT_Method**

<Projection_Parameters>

Dimap_Generic, 1.0

Purpose

Projection parameters associated to the CT_Method

Description

The Projection parameters are part of the Projection description. This group holds all the individual Parameter groups.

Please refer to the Dimap Documentation for more details.

Example

```
<Projection_Parameters>
  <Projection_Parameter>
    ...
  </Projection_Parameter>
  <Projection_Parameter>
    ...
   </Projection_Parameter>
    ...
</Projection_Parameters>
```

Datatype : (t_Projection_Parameters)

Ordered sub-elements :

- Projection_Parameter , maxOccurs=unbounded

Special constraint : id=C_20_1.2, xpath=//Projection_CT_Method/Projection_Parameters

CM if PROJECTION_CT_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Projection_CT_Method**

<Projection_Parameter>

Dimap_Generic, 1.0

Purpose

Projection parameter description and value

Description

This group is part of the Projection description. It can be repeated as many times as necessary to describe all the needed parameters of a given projection.

Please refer to the Dimap Documentation for more details.

Example

```
<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjScaleAtNatOriginGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3092</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE>0.9998</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>

or

<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjFalseEastingGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3082</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE unit="M">500000.0</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>
```

Datatype : (t_Projection_Parameter)

Unordered sub-elements :

- PROJECTION_PARAMETER_NAME
- PROJECTION_PARAMETER_CODE , minOccurs=0
- PROJECTION_PARAMETER_VALUE

Possible parents :

- **Projection_Parameters**

<PROJECTION_PARAMETER_NAME> Dimap_Generic, 1.0

Purpose

Identification name of the current projection parameter

Description

This keyword provides the name of the projection parameter being described. The list of projection parameters is dependent upon the chosen Projection Coordinate Transform (PROJECTION_CT_NAME/CODE). This name gives the textual definition asociated to PROJECTION_PARAMETER_CODE. The name space is defined by the GEO_TABLES keyword.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjScaleAtNatOriginGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3092</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE>0.9998</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>

or

<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjFalseEastingGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3082</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE unit="M">500000.0</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>
```

Datatype : (t_PROJECTION_PARAMETER_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Projection_Parameter**

<PROJECTION_PARAMETER_CODE>

Dimap_Generic, 1.0

Purpose

Identification code of a projection parameter

Description

This keyword provides the unique identification code for the projection parameter being described. The list of projection parameters is dependent upon the chosen Projection Coordinate Transform (PROJECTION_CT_NAME/CODE). The code range is defined by the GEO_TABLES keyword (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjScaleAtNatOriginGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3092</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE>0.9998</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>

or

<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjFalseEastingGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3082</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE unit="M">500000.0</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>
```

Datatype : (t_PROJECTION_PARAMETER_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Projection_Parameter**

<PROJECTION_PARAMETER_VALUE> Dimap_Generic, 1.0

Purpose

Value of the current projection parameter

Description

This keyword provides the value of the projection parameter being described. The list of projection parameters is dependent upon the chosen Projection Coordinate Transform (PROJECTION_CT_NAME/CODE). This value corresponds to the definition asociated to PRJECTION_PARAMETER_CODE.

Please note that the value type can be Angular, Linear or Real according to the nature of the parameter (false easting, central meridian, scale factor,...).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Example

```
<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjScaleAtNatOriginGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3092</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE>0.9998</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>

or

<Projection_Parameter>
<PROJECTION_PARAMETER_NAME>ProjFalseEastingGeoKey</PROJECTION_PARAMETER_NAME>
   <PROJECTION_PARAMETER_CODE>epsg:3082</PROJECTION_PARAMETER_CODE>
   <PROJECTION_PARAMETER_VALUE unit="M">500000.0</PROJECTION_PARAMETER_VALUE>
</Projection_Parameter>
```

Datatype : (t_PROJECTION_PARAMETER_VALUE)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_PROJECTION_PARAMETER_VALUE_Unit

Datatype : (k_PROJECTION_PARAMETER_VALUE_Unit)
Restriction of String

- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***

- *GON*
- *RAD*

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Projection_Parameter**

<Coordinate_Axis>

Dimap_Generic, 1.0

Purpose

Coordinate axis description

Description

Coordinate axis description is used when nen-standard naming schemes are required (odd projections).

Example

```
<Coordinate_Axis>
   <AXIS1_NAME>Easting</AXIS1_NAME>
   <AXIS1_ORIENTATION>EAST</AXIS1_ORIENTATION>
   <AXIS2_NAME>Northing</AXIS2_NAME>
   <AXIS2_ORIENTATION>NORTH</AXIS2_ORIENTATION>
</Coordinate_Axis>
```

Datatype : (t_Coordinate_Axis)

Unordered sub-elements :

- AXIS1_NAME
- AXIS1_ORIENTATION
- AXIS2_NAME
- AXIS2_ORIENTATION

Possible parents :

- **Horizontal_CS**

<AXIS1_NAME>

Dimap_Generic, 1.0

Purpose

X (first) axis name

Description

This keyword provides a way to name the CRS first axis in the case they are not simply X and Y. Examples :

- "Easting"
- "Y" (odd projections where X and Y are reversed for historical reasons)

Please note that the X and Y letters in the Dimap keyword names (such as ULXMAP, ULYMAP, XDIM, YDIM, FRAME_X, FRAME_Y . . .) refer to axis1 and axis2 (in this order), whatever the name of these axis may be. Since this can be quite tricky, we advise to carefully use axis renaming and orientation.

Example

```
<Coordinate_Axis>
   <AXIS1_NAME>Easting</AXIS1_NAME>
   <AXIS1_ORIENTATION>EAST</AXIS1_ORIENTATION>
   <AXIS2_NAME>Northing</AXIS2_NAME>
   <AXIS2_ORIENTATION>NORTH</AXIS2_ORIENTATION>
</Coordinate_Axis>
```

Datatype : (t_AXIS1_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Coordinate_Axis**

<AXIS1_ORIENTATION>

Dimap_Generic, 1.0

Purpose

X (first) axis orientation

Description

This keyword provides a way to change the orientation of the CRS first axis in the case it is not obvious.
Examples :

- WEST
- NORTH

Example

```
<Coordinate_Axis>
   <AXIS1_NAME>Easting</AXIS1_NAME>
   <AXIS1_ORIENTATION>EAST</AXIS1_ORIENTATION>
   <AXIS2_NAME>Northing</AXIS2_NAME>
   <AXIS2_ORIENTATION>NORTH</AXIS2_ORIENTATION>
</Coordinate_Axis>
```

Datatype : (t_AXIS1_ORIENTATION)

Restriction of Cardinal_Points

Datatype : (Cardinal_Points)
Restriction of xsd:string
- ***EAST***
- ***NORTH***
- ***WEST***
- ***SOUTH***

Possible parents :

- **Coordinate_Axis**

<AXIS2_NAME> Dimap_Generic, 1.0

Purpose

Y (second) axis name

Description

This keyword provides a way to name the CRS second axis in the case they are not simply X and Y. Examples :

- "Northing"
- "X" (odd projections where X and Y are reversed for historical reasons)

Please note that the X and Y letters in the Dimap keyword names (such as ULXMAP, ULYMAP, XDIM, YDIM, FRAME_X, FRAME_Y . . .) refer to axis1 and axis2 (in this order), whatever the name of these axis may be. Since this can be quite tricky, we advise to carefully use axis renaming and orientation.

Example

```
<Coordinate_Axis>
   <AXIS1_NAME>Easting</AXIS1_NAME>
   <AXIS1_ORIENTATION>EAST</AXIS1_ORIENTATION>
   <AXIS2_NAME>Northing</AXIS2_NAME>
   <AXIS2_ORIENTATION>NORTH</AXIS2_ORIENTATION>
</Coordinate_Axis>
```

Datatype : (t_AXIS2_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Coordinate_Axis**

<AXIS2_ORIENTATION>

Dimap_Generic, 1.0

Purpose

Y (second) axis orientation

Description

This keyword provides a way to change the orientation of the CRS second axis in the case it is not obvious. Examples :

- WEST
- NORTH

Example

```
<Coordinate_Axis>
   <AXIS1_NAME>Easting</AXIS1_NAME>
   <AXIS1_ORIENTATION>EAST</AXIS1_ORIENTATION>
   <AXIS2_NAME>Northing</AXIS2_NAME>
   <AXIS2_ORIENTATION>NORTH</AXIS2_ORIENTATION>
</Coordinate_Axis>
```

Datatype : (t_AXIS2_ORIENTATION)

Restriction of Cardinal_Points

Datatype : (Cardinal_Points)
Restriction of xsd:string
- EAST
- NORTH
- WEST
- SOUTH

Possible parents :

- **Coordinate_Axis**

<Vertical_CS>

Dimap_Generic, 1.0

Purpose

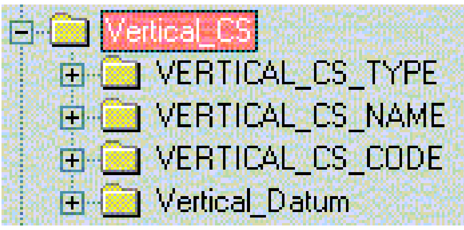
Vertical Coordinate System description

Description

Vertical Coordinate System description is part of the CRS description. It is used only when 3D data is involved (DEMs for example).

Please refer to the Dimap Documentation for more details.

Illustration



Example

```
<Vertical_CS purpose="Vertical Coordinate System description">
  <VERTICAL_CS_TYPE>HEIGHT</VERTICAL_CS_TYPE>
  <VERTICAL_CS_NAME>Marseille mean sea level</VERTICAL_CS_NAME>
  <VERTICAL_CS_CODE>epsg:1234</VERTICAL_CS_CODE>
  <Vertical_Datum>
    ...
  </Vertical_Datum>
</Vertical_CS>
```

Datatype : (t_Vertical_CS)

Unordered sub-elements :

- VERTICAL_CS_TYPE
- VERTICAL_CS_NAME
- VERTICAL_CS_CODE , minOccurs=0
- Vertical_Datum , minOccurs=0 , CM if VERTICAL_CS_CODE not present

Possible parents :

- **Coordinate_Reference_System**

<VERTICAL_CS_TYPE>

Dimap_Generic, 1.0

Purpose

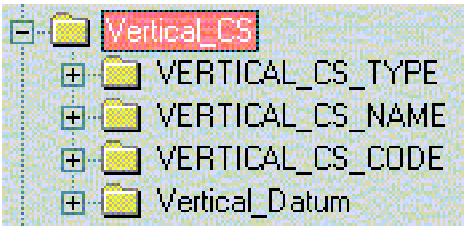
Vertical Coordinate System type

Description

Vertical Coordinate System type is either HEIGHT or DEPTH. Discussion of the implications behind these definitions is beyond the scope of this documentation.

Please refer to Cartography/Geodesy reference literature.

Illustration



Example

```
<Vertical_CS purpose="Vertical Coordinate System description">
  <VERTICAL_CS_TYPE>HEIGHT</VERTICAL_CS_TYPE>
  <VERTICAL_CS_NAME>Marseille mean sea level</VERTICAL_CS_NAME>
  <VERTICAL_CS_CODE>epsg:1234</VERTICAL_CS_CODE>
  <Vertical_Datum>
    ...
  </Vertical_Datum>
</Vertical_CS>
```

Datatype : (t_VERTICAL_CS_TYPE)

Restriction of Vertical_CS_Types

Datatype : (Vertical_CS_Types)
Restriction of xsd:string
- *HEIGHT*
- *DEPTH*

Possible parents :

- **Vertical_CS**

<VERTICAL_CS_NAME>

Dimap_Generic, 1.0

Purpose

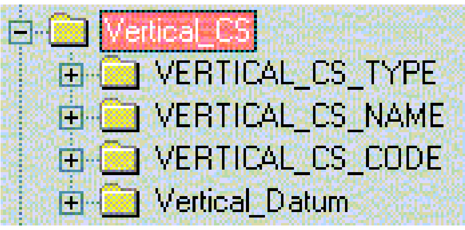
Vertical Coordinate System identification name

Description

Vertical Coordinate System identification name. The name should belong to a listed name defined by GEO_TABLES.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Vertical_CS purpose="Vertical Coordinate System description">
  <VERTICAL_CS_TYPE>HEIGHT</VERTICAL_CS_TYPE>
  <VERTICAL_CS_NAME>Marseille mean sea level</VERTICAL_CS_NAME>
  <VERTICAL_CS_CODE>epsg:1234</VERTICAL_CS_CODE>
  <Vertical_Datum>
    ...
  </Vertical_Datum>
</Vertical_CS>
```

Datatype : (t_VERTICAL_CS_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Vertical_CS**

<VERTICAL_CS_CODE>

Dimap_Generic, 1.0

Purpose

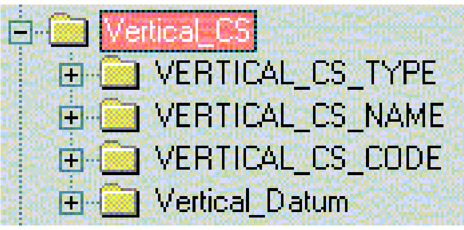
Vertical Coordinate System identification code

Description

Vertical Coordinate System identification code. The coding scheme is defined by GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Vertical_CS purpose="Vertical Coordinate System description">
  <VERTICAL_CS_TYPE>HEIGHT</VERTICAL_CS_TYPE>
  <VERTICAL_CS_NAME>Marseille mean sea level</VERTICAL_CS_NAME>
  <VERTICAL_CS_CODE>epsg:1234</VERTICAL_CS_CODE>
  <Vertical_Datum>
    ...
  </Vertical_Datum>
</Vertical_CS>
```

Datatype : (t_VERTICAL_CS_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Vertical_CS**

<Vertical_Datum>

Dimap_Generic, 1.0

Purpose

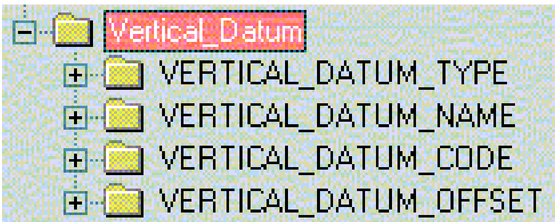
Vertical Datum description

Description

Vertical Datum description is part of the CRS description. It is used only when 3D data is involved (DEMs for example).

Please refer to the Dimap Documentation for more details.

Illustration



Example

```
<Vertical_Datum>
   <VERTICAL_DATUM_NAME>Yellow Sea, China</VERTICAL_DATUM_NAME>
   <VERTICAL_DATUM_CODE>epsg:5704</VERTICAL_DATUM_CODE>
   <VERTICAL_DATUM_TYPE>GEOIDAL</VERTICAL_DATUM_TYPE>
   <VERTICAL_DATUM_OFFSET unit='M'>23.0</VERTICAL_DATUM_OFFSET>
</Vertical_Datum>
```

Datatype : (t_Vertical_Datum)

Unordered sub-elements :

- VERTICAL_DATUM_TYPE
- VERTICAL_DATUM_NAME
- VERTICAL_DATUM_CODE , minOccurs=0
- VERTICAL_DATUM_OFFSET , minOccurs=0

Special constraint : id=C_24_1.2, xpath=//Vertical_CS/Vertical_Datum

CM if VERTICAL_CS_CODE not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Vertical_CS**

<VERTICAL_DATUM_TYPE>

Dimap_Generic, 1.0

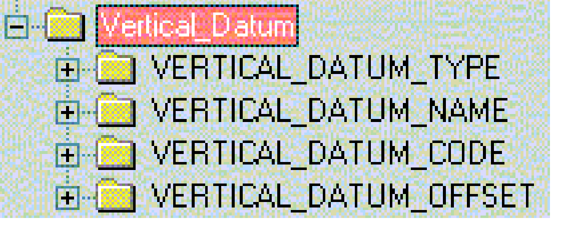
Purpose

Vertical Datum type

Description

Defines the reference surface used for the vertical coordinate system. This can be ELLIPSOIDAL if the elevation is measured as the normal distance above the ellipsoid, or ORTHOMETRIC if the elevation is measured above the geoid (or mean sea level).

Illustration



Example

```
<Vertical_Datum>
   <VERTICAL_DATUM_NAME>Yellow Sea, China</VERTICAL_DATUM_NAME>
   <VERTICAL_DATUM_CODE>epsg:5704</VERTICAL_DATUM_CODE>
   <VERTICAL_DATUM_TYPE>GEOIDAL</VERTICAL_DATUM_TYPE>
   <VERTICAL_DATUM_OFFSET unit='M'>23.0</VERTICAL_DATUM_OFFSET>
</Vertical_Datum>
```

Datatype : (t_VERTICAL_DATUM_TYPE)

Restriction of Vertical_Datum_Types

Datatype : (Vertical_Datum_Types)
Restriction of xsd:string
- ***ELLIPSOIDAL***
- ***GEOIDAL***
- ***OTHER***

Possible parents :

- **Vertical_Datum**

<VERTICAL_DATUM_NAME>

Dimap_Generic, 1.0

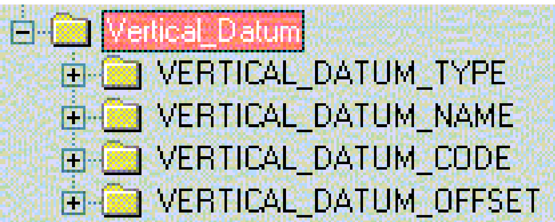
Purpose

Vertical Datum identification name

Description

This field provides the name of the vertical datum, used as reference surface for vertical coordinates or height/depth related attribute values in the current layer. The name space is indicated by GEO_TABLES.

Illustration



Example

```
<Vertical_Datum>
   <VERTICAL_DATUM_NAME>Yellow Sea, China</VERTICAL_DATUM_NAME>
   <VERTICAL_DATUM_CODE>epsg:5704</VERTICAL_DATUM_CODE>
   <VERTICAL_DATUM_TYPE>GEOIDAL</VERTICAL_DATUM_TYPE>
   <VERTICAL_DATUM_OFFSET unit='M'>23.0</VERTICAL_DATUM_OFFSET>
</Vertical_Datum>
```

Datatype : (t_VERTICAL_DATUM_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Vertical_Datum**

<VERTICAL_DATUM_CODE>

Dimap_Generic, 1.0

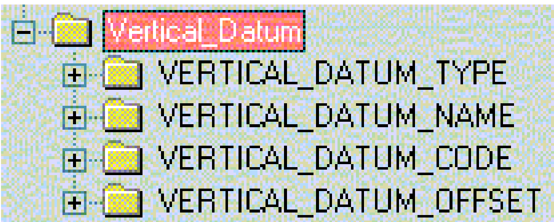
Purpose

Vertical Datum identification code

Description

This field provides the identification of the vertical datum, used as reference surface for vertical coordinates or height/depth related attribute values in the current layer. It refers to a standard national or international coding system as indicated in GEO_TABLES (it is highly recommended to use a namespace prefix such as epsg: in front of the code itself).

Illustration



Example

```
<Vertical_Datum>
   <VERTICAL_DATUM_NAME>Yellow Sea, China</VERTICAL_DATUM_NAME>
   <VERTICAL_DATUM_CODE>epsg:5704</VERTICAL_DATUM_CODE>
   <VERTICAL_DATUM_TYPE>GEOIDAL</VERTICAL_DATUM_TYPE>
   <VERTICAL_DATUM_OFFSET unit='M'>23.0</VERTICAL_DATUM_OFFSET>
</Vertical_Datum>
```

Datatype : (t_VERTICAL_DATUM_CODE)

Restriction of Code

Datatype : (Code)
Restriction of xsd:string

Possible parents :

- **Vertical_Datum**

<VERTICAL_DATUM_OFFSET> Dimap_Generic, 1.0

Purpose

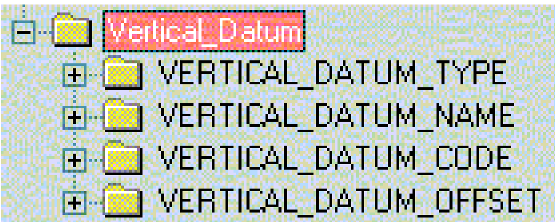
Vertical datum offset

Description

This record provides the offset of the Z coordinates relative to the defined vertical coordinate system. It is measured from the Origin of the Vertical Coordinate System to the new vertical origin.

Check the Dimap Reference manual for a complete description of the Geodetic scheme used in Dimap.

Illustration



Example

```
<Vertical_Datum>
   <VERTICAL_DATUM_NAME>Yellow Sea, China</VERTICAL_DATUM_NAME>
   <VERTICAL_DATUM_CODE>epsg:5704</VERTICAL_DATUM_CODE>
   <VERTICAL_DATUM_TYPE>GEOIDAL</VERTICAL_DATUM_TYPE>
   <VERTICAL_DATUM_OFFSET unit='M'>23.0</VERTICAL_DATUM_OFFSET>
</Vertical_Datum>
```

Datatype : (t_VERTICAL_DATUM_OFFSET)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_VERTICAL_DATUM_OFFSET_Linear_Unit

Datatype : (k_VERTICAL_DATUM_OFFSET_Linear_Unit)
Restriction of String

- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***

Datatype : (String)
Restriction of xsd:string

Possible parents :

Dimap : Digital Image Map xml metadata documentation

- **Vertical_Datum**

<Source_Frame>

Dimap_Generic, 1.0

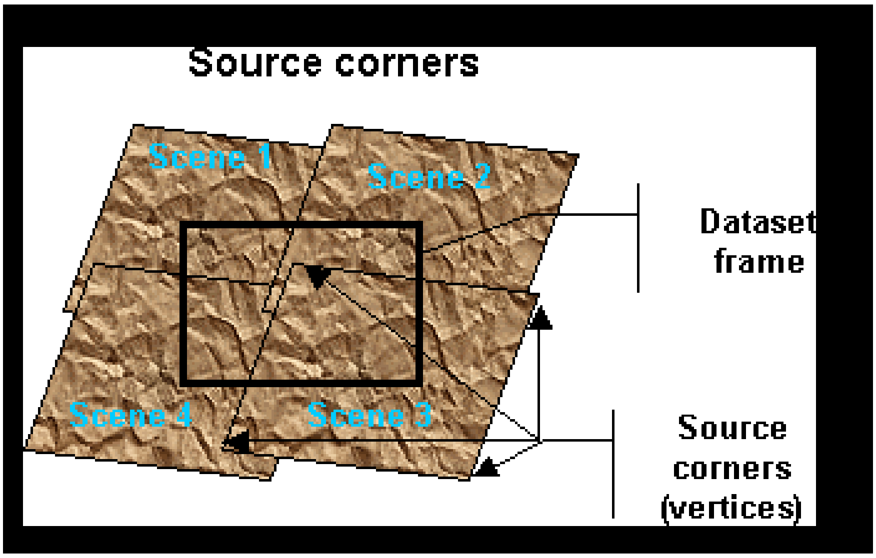
Purpose

Corners of this dataset source

Description

Corners (foot prints) of this dataset source.

Illustration



Datatype : (t_Source_Frame)

Ordered sub-elements :

- Vertex , minOccurs=1 , maxOccurs=unbounded

Possible parents :

- **Source_Information**

<Vertex> Dimap_Generic, 1.0

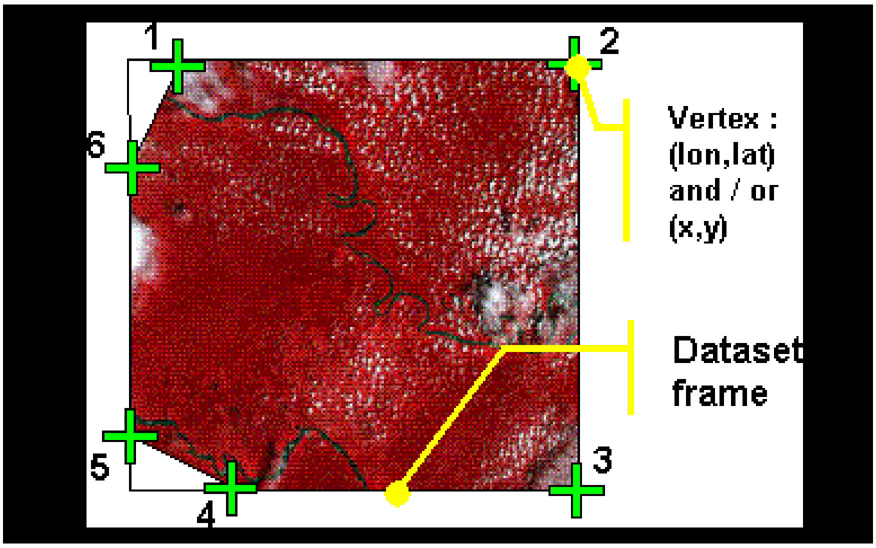
Purpose

Dataset or source frame vertice.

Description

Vertex is repeatable. A Vertex is cited for each vertex of the framing polygon it is describing.

Illustration



Example

```
<Vertex>
  <FRAME_LON unit="DEG">-1.86684000</FRAME_LON>
  <FRAME_LAT unit="DEG">42.41702000</FRAME_LAT>
  <FRAME_X unit='M'>80916.45</FRAME_X>
  <FRAME_Y unit='M'>2403313.91</FRAME_Y>
</Vertex>
```

Datatype : (t_Vertex)

Unordered sub-elements :

- FRAME_LON , minOccurs=0 , CM if FRAME_X not present
- FRAME_LAT , minOccurs=0 , CM if FRAME_Y not present
- FRAME_X , minOccurs=0 , CM if FRAME_LON not present
- FRAME_Y , minOccurs=0 , CM if FRAME_LAT not present

Possible parents :

- **Dataset_Frame**
- **Source_Frame**

<FRAME_LON>

Dimap_Generic, 1.0

Purpose

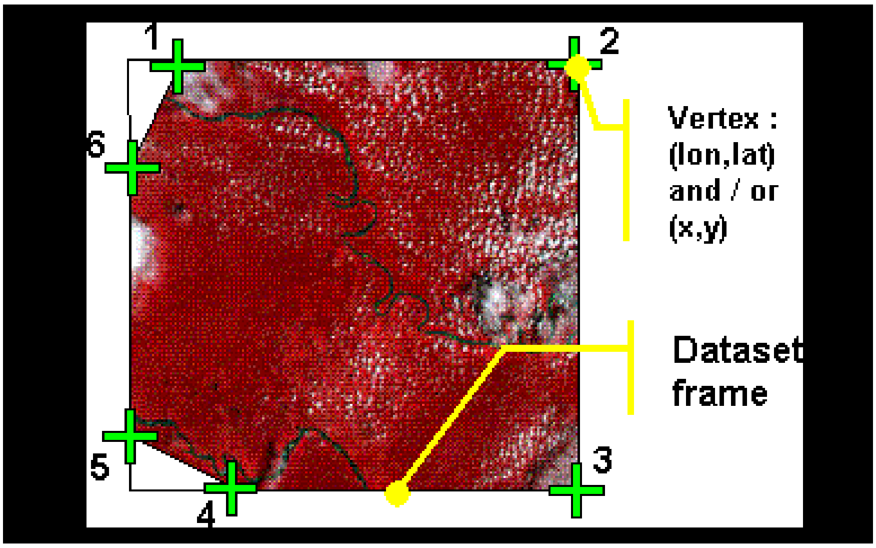
Longitude coordinate of a vertex belonging to a frame

Description

This keyword provides the longitude coordinate of the current vertex of a frame. It is expressed in the Geographic Coordinate System attached to the Coordinate Reference System.

The frame is represented as a polygon. The frame can be either the Dataset_Frame or the Source_Frame. Please refer to the attached figure.

Illustration



Example

```
<FRAME_LON unit="DEG">35.09090909</FRAME_LON>
```

Datatype : (t_FRAME_LON)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_FRAME_LON_Angular_Unit

Datatype : (k_FRAME_LON_Angular_Unit)
Restriction of String
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_49_1.2, xpath=//Vertex/FRAME_LON

CM if FRAME_X not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Vertex**

<FRAME_LAT>

Dimap_Generic, 1.0

Purpose

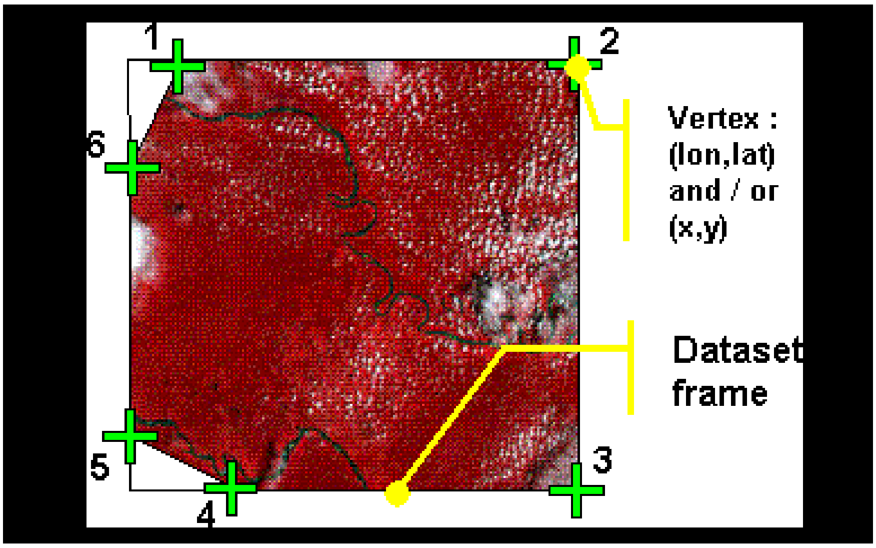
Latitude coordinate of a vertex belonging to a frame

Description

This keyword provides the latitude coordinate of the current vertex of a frame. It is expressed in the Geographic Coordinate System attached to the Coordinate Reference System.

The frame is represented as a polygon. The frame can be either the Dataset_Frame or the Source_Frame. Please refer to the attached figure.

Illustration



Example

```
<FRAME_LAT unit="DEG">32.14285714</FRAME_LAT>
```

Datatype : (t_FRAME_LAT)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_FRAME_LAT_Angular_Unit

Datatype : (k_FRAME_LAT_Angular_Unit)
Restriction of String
- *DEG*
- *DMS*
- *MNT*
- *SEC*
- *GON*
- *RAD*

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_49_2.2, xpath=//Vertex/FRAME_LAT

CM if FRAME_Y not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Vertex**

<FRAME_X>

Dimap_Generic, 1.0

Purpose

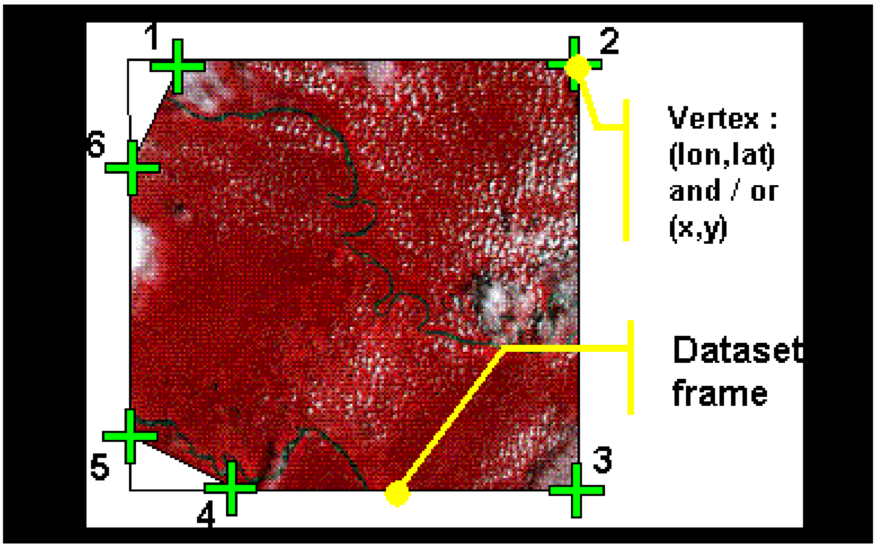
Projected X coordinate of a vertex belonging to a frame

Description

This keyword provides the projected X coordinate of the current vertex of a frame. It is expressed in the Projected Coordinate System described by Coordinate_Reference_System.

The frame is represented as a polygon. The frame can be either the Dataset_Frame or the Source_Frame. Please refer to the attached figure.

Illustration



Example

```
<Vertex>
  <FRAME_LON unit="DEG">-1.86684000</FRAME_LON>
  <FRAME_LAT unit="DEG">42.41702000</FRAME_LAT>
  <FRAME_X unit='M'>80916.45</FRAME_X>
  <FRAME_Y unit='M'>2403313.91</FRAME_Y>
</Vertex>
```

Datatype : (t_FRAME_X)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_FRAME_X_Unit

Datatype : (k_FRAME_X_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***

- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_49_3.2, xpath=//Vertex/FRAME_X

CM if FRAME_LON not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Vertex**

<FRAME_Y>

Dimap_Generic, 1.0

Purpose

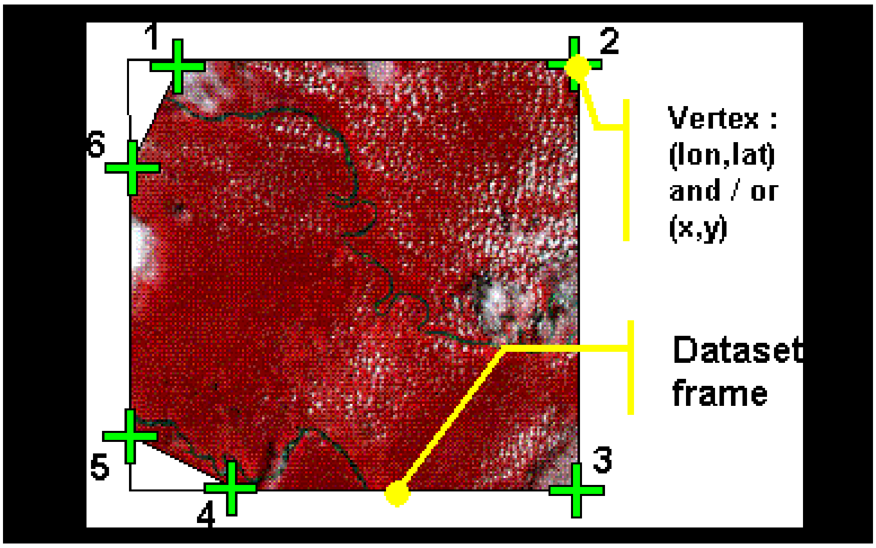
Projected Y coordinate of a vertex belonging to a frame

Description

This keyword provides the projected Y coordinate of the current vertex of a frame. It is expressed in the Projected Coordinate System described by Coordinate_Reference_System.

The frame is represented as a polygon. The frame can be either the Dataset_Frame or the Source_Frame. Please refer to the attached figure.

Illustration



Example

```
<Vertex>
  <FRAME_LON unit="DEG">-1.86684000</FRAME_LON>
  <FRAME_LAT unit="DEG">42.41702000</FRAME_LAT>
  <FRAME_X unit='M'>80916.45</FRAME_X>
  <FRAME_Y unit='M'>2403313.91</FRAME_Y>
</Vertex>
```

Datatype : (t_FRAME_Y)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_FRAME_Y_Unit

Datatype : (k_FRAME_Y_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***

- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***
- ***RAD***

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_49_4.2, xpath=//Vertex/FRAME_Y

CM if FRAME_LAT not present

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- Vertex

<Scene_Source>

Dimap_Generic, 1.0

Purpose

Specific source information for imagery scenes

Description

Specific source information for imagery scenes (satellite images, aerial photo, airborn scanners, ...), this includes imaging sensor, date and time of acquisition, scene foot prints, and so forth.

There may be several image sources for a single resulting image (in case of mosaic or multi-temporal synthesis for example)

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_Scene_Source)

Unordered sub-elements :

- IMAGING_DATE
- IMAGING_TIME , minOccurs=0
- MISSION
- MISSION_INDEX , minOccurs=0
- INSTRUMENT , minOccurs=0
- INSTRUMENT_INDEX , minOccurs=0
- IMAGING_MODE , minOccurs=0
- GRID_REFERENCE , minOccurs=0
- SHIFT_VALUE , minOccurs=0
- INCIDENCE_ANGLE , minOccurs=0
- VIEWING_ANGLE , minOccurs=0
- THEORETICAL_RESOLUTION , minOccurs=0
- SUN_AZIMUTH , minOccurs=0
- SUN_ELEVATION , minOccurs=0
- SCENE_RECTIFICATION_ELEV , minOccurs=0
- SCENE_PROCESSING_LEVEL , minOccurs=0

Possible parents :

- **Source_Information**

<IMAGING_DATE>

Dimap_Generic, 1.0

Purpose

Aquisition date for the source being described

Description

This keyword provides the image aquisition date of the current source.

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_IMAGING_DATE)

Restriction of Date

Datatype : (Date)
Restriction of xsd:date

Possible parents :

- **Scene_Source**

<IMAGING_TIME>

Dimap_Generic, 1.0

Purpose

Aquisition time for the source scene being described

Description

This keyword provides the image aquisition time of the current source. The time is expressed in U.T. (GMT).

There may be several image sources for a single resulting image (in case of mosaic or multi-temporal synthesis for example)

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_IMAGING_TIME)

Restriction of Time

Datatype : (Time)
Restriction of xsd:time

Possible parents :

- **Scene_Source**

<MISSION>

Dimap_Generic, 1.0

Purpose

Mission (satellite, airborne, . . .) identification for the source scene being described

Description

This keyword provides the mission identification used to acquire the current source. Common examples are :

- "SPOT1..5"
- "ERS1,2"
- "FLY980512" for an airborne mission
- "LANDSAT1..7"

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_MISSION)

Restriction of String

Datatype : (String)

Restriction of xsd:string

Possible parents :

- **Scene_Source**

<MISSION_INDEX>

Dimap_Generic, 1.1

Purpose

Index of the mission

Description

This keyword represents the satellite number.

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_MISSION_INDEX)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Scene_Source**

<INSTRUMENT>

Dimap_Generic, 1.0

Purpose

Instrument used for the source scene being described

Description

This keyword provides the instrument identification used to aquire the current source. Common examples are :

- "HRV1,2" for SPOT1,2,3 instruments
- "HRVIR1,2" for SPOT4 instruments
- "VGT" for the SPOT4 Vegetation instrument
- "HRGA,B" or "HRS" for SPOT5 instruments
- "TM" for Landsat

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_INSTRUMENT)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Scene_Source**

<INSTRUMENT_INDEX>

Dimap_Generic, 1.1

Purpose

Index of the instrument

Description

This keyword represents the index of the instrument within the instrument type (1, 2 ...). Typical values are 1, 2 and 1 for HRS-Front, 2 for HRS-Rear.

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_INSTRUMENT_INDEX)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Scene_Source**

<IMAGING_MODE>

Dimap_Generic, 1.0

Purpose

Aquisition spectral mode for the source being described

Description

This keyword provides the image spectral mode of aquisition of the current source. Please note that the spectral mode of the current dataset may be different of the one used during source image aquisition. This means that some specific image processing have been applied, refer to the BAND_DESCRIPTION keyword for details.

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_IMAGING_MODE)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Scene_Source**

<GRID_REFERENCE>

Dimap_Generic, 1.0

Purpose

Grid reference for the source scene #n

Description

This record provides an identification of the imaging camera (satellite) ground reference grid during the acquisition of data of the nth dataset source.

Examples :

- "K-J" for SPOT satellite series
- "PATH/ROW" for Landsat satellite series
- "PATH/FRAME" for aerial photography
- "ORBIT/REVOLUTION" for ERS satellites

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_GRID_REFERENCE)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Scene_Source**

<SHIFT_VALUE>

Dimap_Generic, 1.0

Purpose

Shift along the track value for the current source scene

Description

Shift along the track value for scenes located between 2 grid nodes for the current source scene. This value is sensor dependant, Spot uses a figure between 0 and 9 which is given in tenth of a scene. Other sensors might use a percentage or a figure between 0.0 and 1.0.

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_SHIFT_VALUE)

Restriction of Real

Datatype : (Real)
Restriction of xsd:double

Possible parents :

- Scene_Source

<INCIDENCE_ANGLE>

Dimap_Generic, 1.0

Purpose

Acquisition incidence angle of the source scene being described

Description

This keyword provides the image mean ground incidence angle of the current source. Incidence angle is 0 for vertical aquisitions. Usually the mean incidence angle corresponds to the incidence angle at the center of the source scene. The incidence angle may vary a lot with some sensors such as radar.

There may be several image sources for a single resulting image (in case of mosaic or multi-temporal synthesis for example)

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_INCIDENCE_ANGLE)

Simple content :
Restriction of Degree_Elt
Min value (inclusive) : -90.0
Max value (inclusive) : 90.0
Extension of xsd:double
Attribute : **unit** of type k_Degree_Unit

Datatype : (k_Degree_Unit)
Restriction of xsd:string
- DEG

Possible parents :

- **Scene_Source**

<VIEWING_ANGLE>

Dimap_Generic, 1.0

Purpose

Current source scene instrumental viewing angle

Description

Current source scene instrumental viewing angle. This is similar to INCIDENCE_ANGLE but from the instrument point of view.

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_VIEWING_ANGLE)

Simple content :
Restriction of Degree_Elt
Min value (inclusive) : -90.0
Max value (inclusive) : 90.0
Extension of xsd:double
Attribute : **unit** of type k_Degree_Unit

Datatype : (k_Degree_Unit)
Restriction of xsd:string
- *DEG*

Possible parents :

- **Scene_Source**

<THEORETICAL_RESOLUTION>

Dimap_Generic, 1.0

Purpose

theoretical resolution of the current source scene

Description

This keyword provides an indication of the theoretical ground resolution of the input sensor used for the current source.

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_THEORETICAL_RESOLUTION)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_THEORETICAL_RESOLUTION_Unit

Datatype : (k_THEORETICAL_RESOLUTION_Unit)
Restriction of String

- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***
- ***DEG***
- ***DMS***
- ***MNT***
- ***SEC***
- ***GON***

- RAD

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Scene_Source**

<SUN_AZIMUTH>

Dimap_Generic, 1.0

Purpose

Sun azimuth at time of data acquisition for the current source scene

Description

Sun azimuth at time of data acquisition for the current source scene. The azimuth is mesured from the geographic north.

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_SUN_AZIMUTH)

Simple content :
Restriction of Degree_Elt
Min value (inclusive) : 0.0
Max value (inclusive) : 360.0
Extension of xsd:double
Attribute : **unit** of type k_Degree_Unit

Datatype : (k_Degree_Unit)
Restriction of xsd:string
- *DEG*

Possible parents :

- **Scene_Source**

<SUN_ELEVATION>

Dimap_Generic, 1.0

Purpose

Sun elevation at time of data acquisition for the current source scene

Description

Sun elevation at time of data acquisition for the current source scene. Sun elevation is mesured above local horizon (i.e. the plane tangent to the earth surface at the scene center)

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_SUN_ELEVATION)

Simple content :
Restriction of Degree_Elt
Min value (inclusive) : -90.0
Max value (inclusive) : 90.0
Extension of xsd:double
Attribute : **unit** of type k_Degree_Unit

Datatype : (k_Degree_Unit)
Restriction of xsd:string
- DEG

Possible parents :

- **Scene_Source**

<SCENE_RECTIFICATION_ELEV> Dimap_Generic, 1.0

Purpose

Current input source scene rectification elevation

Description

This keyword provides the rectification elevation of the current scene source. This is mainly for production flow documentation purposes. It is meaningful only when no DTM was available to ortho-rectify the image. In that case a mean elevation is used overall the source scene. Since several source scenes can be used as a mosaic to produce the final output image, each of it is located at different places, different rectification elevations can be used.

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_SCENE_RECTIFICATION_ELEV)

Simple content :
Extension of xsd:double
Attribute : **unit** of type k_SCENE_RECTIFICATION_ELEV_Linear_Unit

Datatype : (k_SCENE_RECTIFICATION_ELEV_Linear_Unit)
Restriction of String
- ***M***
- ***FT***
- ***FTUS***
- ***FTCLA***
- ***LKCLA***
- ***LKBEN***
- ***CHBEN***
- ***CHSEAR***
- ***YDSEAR***
- ***YDIND***
- ***FTSEAR***
- ***FM***
- ***NM***
- ***CM***
- ***KM***
- ***FTIND***
- ***SFT***

Datatype : (String)

Restriction of xsd:string

Possible parents :

- **Scene_Source**

<SCENE_PROCESSING_LEVEL>

Dimap_Generic, 1.0

Purpose

Current input source scene processing level

Description

This keyword provides the input processing level of the current scene source. This is mainly for production flow documentation purposes.

Example

```
<Scene_Source>

    <MISSION>SPOT 2</MISSION>
    <INSTRUMENT>HRV</INSTRUMENT>
    <INSTRUMENT_INDEX>1</INSTRUMENT_INDEX>
    <IMAGING_MODE>XS</IMAGING_MODE>
    <IMAGING_DATE>1993-03-12</IMAGING_DATE>
    <IMAGING_TIME>04:50:56</IMAGING_TIME>
    <GRID_REFERENCE>234-298</GRID_REFERENCE>
    <SHIFT_VALUE>0</SHIFT_VALUE>
    <SCENE_RECTIFICATION_ELEV unit="M">0</SCENE_RECTIFICATION_ELEV>
    <INCIDENCE_ANGLE unit="DEG">-1.0</INCIDENCE_ANGLE>
    <THEORETICAL_RESOLUTION unit="M">20</THEORETICAL_RESOLUTION>
    <SUN_AZIMUTH unit="DEG">144</SUN_AZIMUTH>
    <SUN_ELEVATION unit="DEG">54.5</SUN_ELEVATION>
</Scene_Source>
```

Datatype : (t_SCENE_PROCESSING_LEVEL)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Scene_Source**

<Quality_Assessment>

Dimap_Generic, 1.0

Purpose

Quality information about the data (geometric accuracy, defects, progress,...)

Description

Quality information about the data (geometric accuracy, defects, progress,...). Since we do not know of any public standard on this subject which is applicable to geographic data, this group is a kind of place-holder where a data producer can publish his own set of quality parameters.

Datatype : (t_Quality_Assessment)

Ordered sub-elements :

- QUALITY_TABLES
- Quality_Parameter , maxOccurs=unbounded

Possible parents :

- **Dimap_Document**
- **Source_Information**

<QUALITY_TABLES>

Dimap_Generic, 1.0

Purpose

Quality assessment tables identification

Description

This record provides the quality tables used. Presently we do not know of any standard for quality assesment, we recommend that each data producer use its own quality assesment technique and provide some structured information using the QUALITY_* set of keywords. The QUALITY_TABLE is used to identify the quality scheme used by the producer.

The number and name of parameters depends on the type of quality measures performed on the dataset. This could possibly be :

- RMS geometric accuracy/precision measures
- 90% circular geometric errors
- confusion matrix for a classified image

The quality/precision/accuracy issue is still open.

Example

```
<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:COH_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Perpendicular base line of the ERS Tandem
pair</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">-152.4</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:MODEL_RMS_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global root mean square error of physical
model</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">8.3</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:RADIOM_EYE_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global radiometric quality, visual
inspection</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE>Excellent, slight haze at south-east of
image</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>
```

Datatype : (t_QUALITY_TABLES)

Simple content :
Restriction of String_Version
Extension of xsd:string
Attribute : **version** of type xsd:string

Possible parents :

- **Quality_Assessment**

<Quality_Parameter>

Dimap_Generic, 1.0

Purpose

Quality parameter description and value

Description

Quality parameter description and value is part the Quality assessment information.

Example

```
<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:COH_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Perpendicular base line of the ERS Tandem
pair</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">-152.4</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:MODEL_RMS_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global root mean square error of physical
model</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">8.3</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:RADIOM_EYE_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global radiometric quality, visual
inspection</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE>Excellent, slight haze at south-east of
image</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>
```

Datatype : (t_Quality_Parameter)

Ordered sub-elements :

- QUALITY_PARAMETER_DESC
- QUALITY_PARAMETER_CODE , minOccurs=0
- QUALITY_PARAMETER_VALUE , minOccurs=0

Possible parents :

- **Quality_Assessment**

<QUALITY_PARAMETER_DESC>

Dimap_Generic, 1.0

Purpose

Description of the current quality assesment parameter

Description

This keyword provides the description of the current parameter of the Quality assesment series.

The number and name of parameters depends on the type of quality measures performed on the dataset. This could possibly be :

- RMS geometric accuracy/precision measures
- 90% circular geometric errors
- confusion matrix for a classified image

The quality/precision/accuracy issue is still open.

Example

```
<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:COH_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Perpendicular base line of the ERS Tandem
pair</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">-152.4</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:MODEL_RMS_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global root mean square error of physical
model</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">8.3</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:RADIOM_EYE_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global radiometric quality, visual
inspection</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE>Excellent, slight haze at south-east of
image</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>
```

Datatype : (t_QUALITY_PARAMETER_DESC)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Quality_Parameter**

<QUALITY_PARAMETER_CODE>

Dimap_Generic, 1.0

Purpose

Identification code of a quality parameter

Description

This keyword provides the unique identification code for the quality parameter being described. The list of quality parameters is dependent upon the chosen Quality scheme (QUALITY_TABLES). It is highly recommended to prefix the code by the namespace it belongs to, using standard XML namespace mechanism.

Example

```
<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:COH_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Perpendicular base line of the ERS Tandem
pair</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">-152.4</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:MODEL_RMS_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global root mean square error of physical
model</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">8.3</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:RADIOM_EYE_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global radiometric quality, visual
inspection</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE>Excellent, slight haze at south-east of
image</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>
```

Datatype : (t_QUALITY_PARAMETER_CODE)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Quality_Parameter**

<QUALITY_PARAMETER_VALUE>

Dimap_Generic, 1.0

Purpose

Value of the quality assesment parameter

Description

This keyword provides the actual value of the current parameter of the Quality assesment series.

The number and name of parameters depends on the type of quality measures performed on the dataset. This could possibly be :

- RMS geometric accuracy/precision measures
- 90% circular geometric errors
- Confusion matrix for a classified image

The quality/precision/accuracy issue is still open.

Please note that its datatype is set to Text, so that any type of quality information can be published (textual, HTML, Dimension...)

Example

```
<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:COH_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Perpendicular base line of the ERS Tandem
pair</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">-152.4</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:MODEL_RMS_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global root mean square error of physical
model</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE unit="M">8.3</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>

or

<Quality_Parameter>
    <QUALITY_PARAMETER_CODE>spot:RADIOM_EYE_1</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_DESC>Global radiometric quality, visual
inspection</QUALITY_PARAMETER_DESC>
    <QUALITY_PARAMETER_VALUE>Excellent, slight haze at south-east of
image</QUALITY_PARAMETER_VALUE>
</Quality_Parameter>
```

Datatype : (t_QUALITY_PARAMETER_VALUE)

Complex content :
Extension of Text

Possible parents :

- **Quality_Parameter**

<Sensor_Calibration>

Dimap_Generic, 1.2

Purpose

This group of keywords characterises sensors radiometric calibrations.

Datatype : (t_Sensor_Calibration)

Ordered sub-elements :

- METHOD
- Calibration

Special constraint : id=C_399_1.1, xpath=//Source_Information/Sensor_Calibration

CM if unmerged full scene

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Source_Information**

<METHOD>

Dimap_Generic, 1.2

Purpose

Sensor calibration method used

Description

Depends on the satellite number. The calibration may result from ground pre-launch measures, on-board reference light observation, in flight calibrated ground target observations (such as White Sands in the US).

For Spot the value is "SYSTEM".

Example

```
<METHOD>SYSTEM</METHOD>
```

Datatype : (t_METHOD)

Restriction of xsd:string

Possible parents :

- **Sensor_Calibration**

<Calibration>

Dimap_Generic, 1.2

Purpose

This group of keywords characterises sensors calibrations for all bands.

Datatype : (t_Calibration)

Ordered sub-elements :

- Band_Parameters

Possible parents :

- **Sensor_Calibration**

<Band_Parameters>

Dimap_Generic, 1.2

Purpose

This group of keywords characterises sensor calibration for a given band.

Datatype : (t_Band_Parameters)

Ordered sub-elements :

- BAND_INDEX
- Gain_Section

Possible parents :

- **Calibration**

<BAND_INDEX>

Dimap_Generic, 1.0

Purpose

The Band Index number the current group refers to

Description

Used in different groups in order to deliver the band index number (for multispectral images) that the current group is describing.

Example

```
<BAND_INDEX>1</BAND_INDEX>
```

Datatype : (t_BAND_INDEX)

Restriction of PositiveInt

Datatype : (PositiveInt)
Restriction of xsd:integer
Min value (inclusive) : 1

Possible parents :

- **Data_File**
- **Band_Statistics**
- **Spectral_Band_Info**
- **Band_Parameters**

<Gain_Section>

Dimap_Generic, 1.2

Purpose

Used to deliver the Gain number of a given band.

Datatype : (t_Gain_Section)

Ordered sub-elements :

- GAIN_NUMBER
- GAIN_ANALOG_VALUE

Possible parents :

- **Band_Parameters**

<GAIN_NUMBER>

Dimap_Generic, 1.2

Purpose

This value is the gain number.

Example

```
<GAIN_NUMBER>7</GAIN_NUMBER>
```

Datatype : (t_GAIN_NUMBER)

Restriction of xsd:int
- *1*
- *2*
- *3*
- *4*
- *5*
- *6*
- *7*
- *8*
- *9*
- *10*

Possible parents :

- **Gain_Section**

<GAIN_ANALOG_VALUE>

Dimap_Generic, 1.2

Purpose

This value is the mean gain analogue value as provided by GPSP.

Example

```
<GAIN_ANALOG_VALUE>2.196000</GAIN_ANALOG_VALUE>
```

Datatype : (t_GAIN_ANALOG_VALUE)

Restriction of xsd:float

Possible parents :

- **Gain_Section**

<Vector_Attributes>

Dimap_Generic, 1.0

Purpose

List of available vector attributes

Description

The list of available vector attributes delivers some information about the type and contents of a vector attribute file.

Example

```
<Vector_Attributes>
   <ATTRIBUTE_FILE_PATH href="Roads.xls"/>
   <ATTRIBUTE_FILE_FORMAT>XLS</ATTRIBUTE_FILE_FORMAT>
   <ATTRIBUTE_FILE_FORMAT_DESC>MS Excel 2000
file</ATTRIBUTE_FILE_FORMAT_DESC>
   <Attribute_Field>
      ...
   </Attribute_Field>
   <Attribute_Field>
      ...
   </Attribute_Field>
   ...
</Vector_Attributes>
```

Datatype : (t_Vector_Attributes)

Ordered sub-elements :

- ATTRIBUTE_FILE_PATH
- ATTRIBUTE_FILE_FORMAT
- ATTRIBUTE_FILE_FORMAT_DESC , minOccurs=0 , CM if ATTRIBUTE_FILE_FORMAT = 'OTHER'
- Attribute_Field , maxOccurs=unbounded

Possible parents :

- **Dimap_Document**

<ATTRIBUTE_FILE_PATH> Dimap_Generic, 1.0

Purpose

Path to the Attribute file

Description

This record provides the path to the vector attribute file. Please note that if the path is relative then it is relative to the current Dimap document (the xml file currently being parsed).

The path notation follows the URI/URL standard which can be found at :

- http://www.w3.org/Addressing/Addressing.html,
- http://www.w3.org/Addressing/URL/uri-spec.html,
- http://www.w3.org/Addressing/URL/url-spec.html.

Example

```
<Vector_Attributes>
   <ATTRIBUTE_FILE_PATH href="Roads.xls"/>
   <ATTRIBUTE_FILE_FORMAT>XLS</ATTRIBUTE_FILE_FORMAT>
   <ATTRIBUTE_FILE_FORMAT_DESC>MS Excel 2000
file</ATTRIBUTE_FILE_FORMAT_DESC>
   <Attribute_Field>
      ...
   </Attribute_Field>
   <Attribute_Field>
      ...
   </Attribute_Field>
   ...
</Vector_Attributes>
```

Datatype : (t_ATTRIBUTE_FILE_PATH)

Complex content :
Extension of URI
Attribute : **href** of type xsd:anyURI

Possible parents :

- **Vector_Attributes**

<ATTRIBUTE_FILE_FORMAT>

Dimap_Generic, 1.0

Purpose

Attribute file format identification

Description

File format of attribute file according to defined file formats domain including OTHER. If the file format is set to other then ATTRIBUTE_FILE_FORMAT_DESC must be stated.

Example

```
<Vector_Attributes>
   <ATTRIBUTE_FILE_PATH href="Roads.xls"/>
   <ATTRIBUTE_FILE_FORMAT>XLS</ATTRIBUTE_FILE_FORMAT>
   <ATTRIBUTE_FILE_FORMAT_DESC>MS Excel 2000
file</ATTRIBUTE_FILE_FORMAT_DESC>
   <Attribute_Field>
      ...
   </Attribute_Field>
   <Attribute_Field>
      ...
   </Attribute_Field>
   ...
</Vector_Attributes>
```

Datatype : (t_ATTRIBUTE_FILE_FORMAT)

Simple content :
Restriction of Attribute_Formats
Restriction of String_Version
- *DBF*
- *MDB*
- *XLS*
- *DIF*
- *SYLK*
- *MID*
- *OTHER*

Extension of xsd:string
Attribute : **version** of type xsd:string

Possible parents :

- **Vector_Attributes**

<ATTRIBUTE_FILE_FORMAT_DESC>

Dimap_Generic, 1.0

Purpose

Attribute file format textual description

Description

Textual description of the format used for the attribute file. This is used mainly when the ATTRIBUTE_FILE_FORMAT keyword is valued to OTHER.

Example

```
<Vector_Attributes>
   <ATTRIBUTE_FILE_PATH href="Roads.xls"/>
   <ATTRIBUTE_FILE_FORMAT>XLS</ATTRIBUTE_FILE_FORMAT>
   <ATTRIBUTE_FILE_FORMAT_DESC>MS Excel 2000
file</ATTRIBUTE_FILE_FORMAT_DESC>
   <Attribute_Field>
      ...
   </Attribute_Field>
   <Attribute_Field>
      ...
   </Attribute_Field>
   ...
</Vector_Attributes>
```

Datatype : (t_ATTRIBUTE_FILE_FORMAT_DESC)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Special constraint : id=C_51_1.1, xpath=//Vector_Attributes/ATTRIBUTE_FILE_FORMAT_DESC

CM if ATTRIBUTE_FILE_FORMAT = 'OTHER'

Note : CM means Conditional Mandatory, X means exluded

Possible parents :

- **Vector_Attributes**

<Attribute_Field>

Dimap_Generic, 1.0

Purpose

Attribute field description

Description

Attribute fields description for vector data fields.

Example

```
<Attribute_Field>
   <ATTRIBUTE_FIELD_NAME>length</ATTRIBUTE_FIELD_NAME>
   <ATTRIBUTE_FIELD_DESC>Length of this road segment</ATTRIBUTE_FIELD_DESC>
   <ATTRIBUTE_FIELD_TYPE>real</ATTRIBUTE_FIELD_TYPE>
</Attribute_Field>
```

Datatype : (t_Attribute_Field)

Unordered sub-elements :

- ATTRIBUTE_FIELD_NAME
- ATTRIBUTE_FIELD_DESC , minOccurs=0
- ATTRIBUTE_FIELD_TYPE , minOccurs=0

Possible parents :

- **Vector_Attributes**

<ATTRIBUTE_FIELD_NAME>

Dimap_Generic, 1.0

Purpose

Attribute field name for the current field.

Description

Attribute field name for the current vector data field.

This is used for describing the attribute file associated to a vector graphical data set.

Example

```
<Attribute_Field>
   <ATTRIBUTE_FIELD_NAME>length</ATTRIBUTE_FIELD_NAME>
   <ATTRIBUTE_FIELD_DESC>Length of this road segment</ATTRIBUTE_FIELD_DESC>
   <ATTRIBUTE_FIELD_TYPE>real</ATTRIBUTE_FIELD_TYPE>
</Attribute_Field>
```

Datatype : (t_ATTRIBUTE_FIELD_NAME)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Attribute_Field**

<ATTRIBUTE_FIELD_DESC>

Dimap_Generic, 1.0

Purpose

Attribute field description for the current field.

Description

Attribute field description for the current vector data field.

This is used for describing the attribute file associated to a vector graphical data set.

Example

```
<Attribute_Field>
   <ATTRIBUTE_FIELD_NAME>length</ATTRIBUTE_FIELD_NAME>
   <ATTRIBUTE_FIELD_DESC>Length of this road segment</ATTRIBUTE_FIELD_DESC>
   <ATTRIBUTE_FIELD_TYPE>real</ATTRIBUTE_FIELD_TYPE>
</Attribute_Field>
```

Datatype : (t_ATTRIBUTE_FIELD_DESC)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Attribute_Field**

<ATTRIBUTE_FIELD_TYPE>

Dimap_Generic, 1.0

Purpose

Attribute field type for the current field.

Description

Attribute field data type for the current vector data field.

This is used for describing the attribute file associated to a vector graphical data set.

Example

```
<Attribute_Field>
   <ATTRIBUTE_FIELD_NAME>length</ATTRIBUTE_FIELD_NAME>
   <ATTRIBUTE_FIELD_DESC>Length of this road segment</ATTRIBUTE_FIELD_DESC>
   <ATTRIBUTE_FIELD_TYPE>real</ATTRIBUTE_FIELD_TYPE>
</Attribute_Field>
```

Datatype : (t_ATTRIBUTE_FIELD_TYPE)

Restriction of String

Datatype : (String)
Restriction of xsd:string

Possible parents :

- **Attribute_Field**

Alphabetical Table of Contents